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ABSTRACT

The aim of this study is to trace how the Title II-C program has facilitated scholarly access to research materials across the United States. It is intended to give evidence of the importance of the Title II-C Program to libraries' efforts toward developing, preserving, and sharing their resources with the nation's scholars. The study consists of two components. Part 1 is a series of brief profiles presenting data pertaining to program funding by Congress, i.e., the number and size of grants awarded; the nature of institutions receiving Title II-C funding; the distribution of projects among the program's three primary funding priorities; and the geographical distribution of the 360 grants awarded between 1978 and 1989. Part 2 consists of 22 representative case studies, 11 of which illustrate the scope of project activity within the three program priorities--bibliographic access, preservation, and collection development. The remaining case studies describe the cumulative contributions of Title II-C funded projects to a single academic discipline: music. Two appendices describe the award process and highlight several issues and questions that merit additional consideration. The report concludes with a glossary of library and information science acronyms. (MAB)

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# The Higher Education Act, Title II-C Program: Strengthening Research Library Resources

## A TEN-YEAR PROFILE AND AN ASSESSMENT OF THE PROGRAM'S EFFECTS UPON THE NATION'S SCHOLARSHIP

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# THE HIGHER EDUCATION ACT, TITLE II C PROGRAM: STRENGTHENING RESEARCH LIBRARY RESOURCES

## A TEN YEAR PROFILE AND AN ASSESSMENT OF THE PROGRAM'S EFFECTS UPON THE NATION'S SCHOLARSHIP

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August 1991

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The design for this study originated in ARL's Committee on Government Policies, chaired by Merrily Taylor, University Librarian of Brown University. As a visiting program officer, appointed at the request of the Committee, my work was assisted greatly by the staff of the Title II-C Program of the Department of Education, and especially by Frank Stevens and Louise Sutherland who provided access to program files and who extended to me the benefit of their advice and counsel. Also, I wish to thank Anne J. Mathews, the Department's Director of Library Programs, whose support was essential to the success of the project.

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Samuel Allen Streit

# THE HIGHER EDUCATION ACT, TITLE II-C PROGRAM: STRENGTHENING RESEARCH LIBRARY RESOURCES

### A Ten Year Profile and An Assessment of the Program's Effects Upon The Nation's Scholarship

Congress established the Strengthening Research Library Resources Program through Title II-C of the 1976 Education Amendments to the Higher Education Act of 1965 (P.L. 94-482). Section 231 of the Act notes that

> the expansion in the scope of educational research programs and the rapid increase in the worldwide production of recorded knowledge have placed unprecedented demands upon major research libraries, requiring programs and services that strain the capabilities of cooperative action and are beyond the financial competence of individual or collective library budgets.[1]

In order to address these needs, the Title II-C program was devised "...to promote research and education of higher quality throughout the United States by providing financial assistance to major research libraries."[2] Almost $70,000,000 has been distributed to the nation's research libraries in the twelve years since the first Title II-C grants were awarded in 1978.[3] Grants are made in three program areas: bibliographic control (access), preservation, and collection development.

When Congress established a grant program "...intended to help research libraries maintain and strengthen their collections, which constitute an important national resource essential to scholarship and research, and to assist them in making their holdings available to other libraries whose users have need for research materials,"[4] it set in motion a dynamic process which has resulted in hundreds of thousands of research materials, in all subjects and formats, being made accessible to scholars in institutions large and small. Few areas of scholarly research have been untouched by the benefits of Title II-C, and the library community has utilized the program to extend its commitment to resource sharing and exploit new technologies for the ultimate good of library users throughout the nation. Twelve years later the value to the nation of the program known as Title II-C is evident.

Little has been written about the Title II-C program.[5] This study is a partial response to an earlier call for an assessment of Title II-C's impact on national scholarship. Abigail Studdiford's 1982 review of projects funded under Title II-C recommended "[t]hat the impact of the Title II-C Program be measured, possibly through the establishment of base-line data for project performance or by measuring scholarly output in a subject area supported by the program."[6]

Throughout her report, Studdiford took note of critics' arguments that the program was unfair in not awarding grants to smaller research libraries; that funded projects were heavily concentrated in certain geographic regions; and that a preponderance of funding supported sometimes redundant bibliographic control projects at the expense of other library needs while not taking adequate precautions to insure that national standards of cataloging and data entry were observed. However, she did not find evidence to support charges of unfairness or implications of mismanagement. Rather, she concluded that Title II-C was a significant program which after only four years had "given the nation tens of thousands of unique titles acquired for scholarly investigation, thousands of fragile and irreplaceable volumes preserved for long term use, and hundreds of thousands of bibliographic records linked through online data files, in a format which will enable individual research scholars to locate items not held at the local research library."[7]

In the intervening years since Studdiford produced her report, several of her specific recommendations have been addressed, completely or in part, by changes in the law or in its regulations. Other recommendations remain outstanding. Among Studdiford's recommendations were:

1. That there be a continuation of uninterrupted financial assistance to the Title II-C Program;

2. That funded projects continue to reflect national library priorities as determined by the application process rather than an arbitrary percentage distribution of funds among the program's three principal priorities, i.e., bibliographic control, preservation, and acquisitions;

3. That awards continue to be selective, addressing unique resources of national and international significance, as opposed to awarding grants on a less competitive basis.

4. That Title II-C funding emphasize innovative demonstration projects which use new techniques.

The aim of this study, undertaken through the auspices of the Association of Research Libraries and with funding provided by the H.W. Wilson Foundation, is to trace how the Title II-C program has facilitated scholarly access to research materials across the United States.

The study consists of two components. Part One is a series of brief profiles presenting data pertaining to program funding by Congress; the number and size of grants awarded; the nature of institutions receiving Title II-C funding; the distribution of projects among the program's three primary funding priorities; and the geographical distribution of the three hundred and sixty grants awarded between 1978 and 1989. Part Two consists of twenty two representative case studies, eleven of which illustrate the scope of project activity within the three program priorities. The remaining case studies describe the cumulative contributions of Title II-C funded projects to a single academic discipline: music.

The present study is intended to provide data not readily available in published form and to give evidence of the importance of the Title II-C Program to libraries' efforts toward developing, preserving, and sharing their resources to serve the Nation's scholars.

# FINDINGS

1. The Title II-C program has provided significant benefits to scholars throughout the United States through the increased ability of the nation's research libraries to acquire, preserve and make available materials in a range of formats across a wide spectrum of subject areas. Although statistical data concerning Title II-C grants has not been systematically collected,[8] evidence of the program's impact can be gauged by examining the history of particular grant projects or focusing on the impact of Title II-C funding on a particular academic discipline.

2. A large number of Title II-C projects are pilot projects, undertaken to develop systems and procedures which are subsequently utilized by other libraries. Scholars throughout the country reap the benefits of projects which have developed new methods of providing bibliographic access to material, preserving fragile resources, or enhancing collections of specialized research material.

3. Title II-C projects have utilized a wide variety of library technologies, from the creation of machine-readable cataloging records to the utilization of preservation techniques such as deacidification.

4. Title II-C projects have focused not only on books but on materials in all formats; for example, government documents, manuscripts, sheet music, maps, photographs, playbills, oral history tapes, films and machine readable data files. The subject areas addressed through Title II-C projects have covered a range from sciences to social sciences to humanities.

5. Eighty-six percent of total Title II-C funding between 1977 and 1988 has been devoted to projects which emphasize bibliographic access. Preservation grants accounted for forty-two percent, and collection development for eighteen percent of total grant funding. (The total is over 100 percent because many projects have included all three Title II-C program priorities, and are counted more than once. A typical project which encompassed all three areas might involve acquiring new material to strengthen a specific collection, preserving fragile and deteriorating items within that collection, and making bibliographic records for that collection available through a national or local database.)

6. Bibliographic access projects benefit the scholarly and research community by enabling them to access the resources of libraries throughout the country. These projects have focused on creating original records or converting manually-produced records to machine-readable form, and those records are often contributed to OCLC and RLIN, the nation's principal automated bibliographic utilities. Without the stimulus of Title II-C projects and funding, many of these materials would not have been included in these national bibliographic databases due to both the size of the collections and cost of work entailed.

7. Thirty-six grants for joint projects have been awarded through 1988. All but one of the joint projects have supported bibliographic access efforts. Forty-four institutions have participated in sixteen joint Title II-C projects through 1988. It is not uncommon for an institution to simultaneously receive an individual grant and participate in a joint project.

8. The nation's larger research libraries have received a high percentage of funds, reflecting the authorizing legislation, the importance and significance of their collections, needs, and ability to successfully complete projects. Many of these institutions have served as the primary grantee for joint projects; consequently, the total amount of grant funds awarded to a specific institution may include funds distributed to other institutions. Several of these same institutions have received funds as joint participants in projects in which they were not the primary grantee.

9. Large university libraries predominate as grantees, though smaller institutions consistently have received grants. Between 1978 and 1988, forty-one states and the District of Columbia benefited from the Title II-C program; only Arkansas, Idaho, Maine, Mississippi, Nevada, North and South Dakota,

West Virginia and Wyoming have not received funds. New York, with fifty-two grants, received the largest number of awards, followed by Illinois (forty-four) and California (forty-three). Among the ten geographic regions into which the 1977 program regulations divided the nation, the mid-west region received the highest number of grants, with a total of seventy, followed by the New York-Puerto Rico-Virgin Islands region with fifty-two and the California-Hawaii-American Samoa-Guam region with forty-seven.

10. With a finite number of research libraries, there has understandably been a recurring number receiving Title II-C grants, although each year's list of awards has included a sizeable proportion of first-time grants. Just under one-third of the ninety-eight direct grantees and primary grantees for multi-institutional projects have received five or more grants since 1978. Twenty-six libraries have received only one grant.

11. The average number of proposals submitted by institutions seeking Title II-C funding has increased with over ninety proposals submitted each year since 1984. The combination of the increasing number and and the static level of federal funding for the Title II-C program, has resulted in a reduction of the average grant size. During the first four years of the program, grant size averaged $238,000; between 1985 and 1988, the average grant was $150,000.

# PART ONE: DATA PROFILES

## TRENDS IN FEDERAL FUNDING OF TITLE II-C

Since 1977, Congressional appropriations for the Title II-C Program have totaled $64,246,000. The annual appropriation has ranged from zero (in 1977) to $6,000,000 in 1980 (SEE TABLE 1). The $64.2 million appropriated through 1988 represented less than forty percent of the total amount, $160,000,000, authorized by Congress. In no year between 1977 and 1988 did the Title II-C program receive an appropriation equal to the amount authorized.

Administration funding requests were made for only five years (1978-1982) of the program's twelve-year existence. The Reagan administration attempted to discontinue the program beginning in 1983 by eliminating funding from its annual budget request, but Congress continued to appropriate funds. The Bush administration eliminated Title II-C funds from its 1990 budget request, but requested $5,738,000 (the amount appropriated in 1990) for FY91.

## NUMBER OF PROPOSALS SUBMITTED AND GRANTS AWARDED

The number of grant proposals submitted for funding under the Title II-C Program has fluctuated over the years, from a high of one hundred and one in 1978 to a low of seventy-one in 1980 (SEE TABLE 2). However, with the exception of 1987, the trend in recent years has been a gradual increase in the number of proposals submitted, with over ninety being received each year since 1984.[9] As the number of proposals has increased, so has the number of successful proposals receiving funding. The average number of successful proposals per year between 1978 and 1988 was thirty-three, with at least thirty-five proposals being funded each year since 1982.[10] The average number between 1985 and 1988 increased to 39.25. The percentage increase in funded proposals ranged from a low of twenty percent in 1978 to a high of forty-seven in 1985, with the average per year being thirty-eight percent. The continuing trend appears to be that well over one-third of the proposals submitted each year will be funded.

The preceding figures reflect changes in program regulations relating to the inclusion or exclusion of non-competing continuation grants. Such grants were awarded for the years 1979-1981 and again in the years since 1987, but only in 1979 and 1980 did they represent a sizeable proportion of the total number of funded proposals (nine of twenty-six and fourteen of twenty-two, respectively). In other years, non-competing continuation grants have constituted less than twenty percent of funded proposals, with the exception of 1987, when ten non-competing grants won twenty-seven percent of total funding.

Static levels of Congressional funding, combined with gradual increases in the number of proposals submitted and the relatively higher percentage of funded proposals, have caused the average grant size to diminish. Between 1985 and 1988, the average grant dropped to just $150,000, compared to an average of over $238,000 during the first four years of the program.[11]

## INSTITUTIONAL ANALYSIS

In the eleven years beginning in 1978, ninety-eight libraries have been Title II-C grantees. In addition, twelve libraries that have never received a direct grant or been the primary grantee for a joint project have participated in multi-institutional joint projects, bringing the total number of libraries receiving Title II-C funds to one hundred and ten.[12] Of this total, eighty-six (seventy-eight percent) were situated in academic institutions with the greater number being publicly supported. Eighteen private non-academic institutions, and five public non-academic institutions, have received grants. (SEE TABLE 3) The predominance of large university libraries was well-established from the beginning of the program, given the emphasis of the authorizing legislation on major research libraries. Still, smaller academic institutions have consistently received awards since the program's inception; with recent administrative changes that liberalize the criteria for qualifying as a research library, the number may increase. Thus far, however, these changes have not led to a significant alteration of the status quo relative to the institutional mix of funded projects.

Eighty-three of the funded libraries, including joint project participants, are members of the Association of Research Libraries. As of 1988, one hundred ARL libraries were eligible for Title II-C grants. Sixteen Canadian libraries and the three U.S. national libraries are ineligible for program funds. Of the one hundred eligible libraries, seventeen had not conducted a Title II-C project as of 1988.

The twenty-seven non-ARL libraries that have received funding since 1988 represent a broad range of smaller academic and/or highly specialized research institutions, ranging from Brandeis and Ohio Universities to the American Antiquarian Society and the Pierpont Morgan Library. Research-oriented public institutions, such as the Detroit Public Library and the University of Alaska, were also represented.

With a finite number of research libraries, there has understandably been a recurring number receiving Title II-C grants, although each year's list of awards has included a sizeable proportion of first-time grants. Just under one-third of the ninety-eight direct grantees and primary grantees for multi-institutional projects have received five or more grants since 1978. Twenty-six libraries have received only one grant. (SEE TABLE 4)

While the percentage of first-time grants has varied, it has averaged twenty-three percent per year. There has been no appreciable change in the mix of first-time awardees over the years.[13] (SEE TABLE 5)

The predominance of large university libraries was well-established from the beginning of the program, given the emphasis of the authorizing legislation on major research libraries. Many of these institutions have served as the primary grantee for joint projects; consequently, the total amount of grant funds awarded to a specific institution may include funds distributed to other institutions. Several of these same institutions have received funds as joint participants in projects in which they were not the primary grantee. With these factors in mind, the twenty-three libraries that received over $1,000,000 for the period 1978-1988 constituted over twenty percent of the total number of grantees.

Ten of the institutions that have received over $1,000,000 have served as primary grantees for joint projects. Including joint projects for which they have been the primary grantee, these libraries have received $39,201,211, or sixty-one percent of total Title II-C funds; excluding joint projects, these institutions have received $28,098,938, or forty-four percent of total Title II-C funds. If their portion of joint project funds is added to their direct individual grants, these twenty-three libraries have received close to half of total Title II-C funds.[14] Eleven of the twenty-three libraries have received over $1,500,000.

Thirty-six grants for joint projects have been awarded through 1988. All but one of the joint projects have supported bibliographic control efforts. Forty-four institutions have participated in sixteen joint Title II-C projects through 1988. It is not uncommon for an institution to receive an individual grant and to participate in a joint project simultaneously.

## GEOGRAPHIC DISTRIBUTION OF GRANTS

From 1978 through 1988, forty-one states and the District of Columbia benefitted from the Title II-C program; only Arkansas, Idaho, Maine, Mississippi,[15] Nevada, North and South Dakota, West

Virginia and Wyoming have not received funds. New York, with fifty-two grants, received the largest number of awards, followed by California and Illinois (each with forty-three).[16]

Among the ten national geographic regions which were specified in the 1977 program regulations, the mid-west region received the highest number of grants, with a total of seventy, followed by the New York-Puerto Rico-Virgin Islands region with fifty-two and the California-Hawaii-American Samoa-Guam region with forty-one. (SEE TABLE 6)

Analysis of the geographical distribution of Title II-C grants confirms that the intent of the authorizing legislation -- that funds be awarded to major research libraries exclusively on the basis of institutional and collection strengths, and on the strength of project proposals as judged by peer review -- is being carried out.

## TITLE II-C GRANT FOCUS

Since its inception, the Title II-C program has concentrated its funding priorities in three areas vital to the nation's research libraries: bibliographic access, preservation, and collection development (acquisitions). Grants have been made continuously in all three areas since the first grants were awarded in 1978, but from the beginning the emphasis has been on bibliographic access. This emphasis is due to several factors: the high priority placed by the program on project results; the priorities of applicant institutions that have resulted in a higher proportion of bibliographic control projects submitted for consideration; the desire of applicant institutions to take advantage of such technologically-based opportunities as Cooperative Conversion of Serials (CONSER), National Coordinated Cataloging Operations (NACO), and Archives and Manuscript Control (AMC) that could be exploited with Title II-C funding; recommendations of review panelists that in some instances display preference for bibliographic control projects; the tendency of applicant institutions to imitate previous successful projects, either their own or those of other institutions; and the proclivity of institutions to eliminate preservation/acquisitions components from multi-purpose proposals during the negotiation process, either because they are viewed as less important or because they involve smaller, discrete budget components that can more easily be pared away. Another element affecting the balance of the program's foci is the fact that many preservation and acquisitions projects require the inclusion of a bibliographic control component so that the project results can be disseminated to the scholarly community.

Without question, bibliographic access projects have received an extraordinarily high percentage of Title II-C funds. Bibliographic access projects were supported by $49,949,226, or seventy-three percent of total funds.[17] Department of Education figures show that preservation received $13,219,195 and acquisitions $4,069,843 (twenty-one percent and six percent of total funds, respectively). However, it would be erroneous to assume that applications proposing preservation and acquisitions projects were not regularly submitted and funded, particularly when combined with bibliographic control projects.[18] (SEE TABLE 7)

The Department of Education published a summary of the program's major activity in 1988.[19] In assessing Title II-C's programmatic focus, DOE staff based its finding upon the amount of federal grant funds awarded as represented in each project's final, negotiated budget; institutional contributions, whether in cash or in kind, have not been included. The Department summary categorized the program focus as follows:

| | |
|---|---|
| Bibliographic control | 174 grants |
| Preservation | 39 grants |
| Collection development | 7 grants |
| Bibliographic control/<br>Preservation | 82 grants |

| | |
|---|---|
| Bibliographic control/ Collection development | 27 grants |
| Preservation/ Collection development | 4 grants |
| Bibliographic control/ Preservation/Collection development | 26 grants |

It is interesting to note the number of preservation and collection development grants, particularly when counted as component parts of multi-purpose projects. Viewed in this light, 309 contained bibliographic control components, 151 contained preservation components, and 64 contained collection development components. While these figures do not alter the fact that most Title II-C grants were awarded to bibliographic control projects, they disprove the widely-held assumption that only bibliographic control proposals meet with funding success.

## THE IMPACT OF TITLE II-C

The Title II-C program has distributed $69,913,264 to the nation's research libraries over a twelve-year period. One hundred and ten libraries have participated in Title II-C programs through three hundred and ninety-two grants.[20] Part One of this study has looked at how the Title II-C program has been funded and how grants have been distributed.

What have those grants accomplished? How have the nation's scholars benefitted? Since statistical data concerning Title II-C grants has not been systematically collected that details the number of books acquired, materials preserved or bibliographic records created, Title II-C's impact must be measured by looking at how individual institutions, or groups of institutions, have utilized Title II-C funds for bibliographic control, collection development or preservation. Part Two of this study surveys representative institutions to provide examples of how research libraries have chosen to carry out the legislation's intent. The case studies illustrate:

- the acquisition of specialized or rare material to enhance or complete a library collection which may be a focus for national or international scholarly research;
- the creation of machine-readable records made available through databases which are accessible by scholars at institutions nationwide;
- the preservation of collections for scholarly use;
- the creation of bibliographic records for major microform series, enabling scholars throughout the country to access individual titles within a microform set; and
- the encouragement and funding of pilot projects to develop new methods to provide bibliographic access, enhance collections, and meet preservation needs.

## TABLE 1
## SUMMARY OF FUNDING: FISCAL YEARS 1977-88

| Fiscal Year | Authorization | Administration Request | Congressional Appropriation | Amount Awarded |
|---|---|---|---|---|
| Total | $160,000,000 | $29,000,000 | $64,246,000 | $64,238,264 |
| 1977 | 10,000,000 | 0 | 0 | 0 |
| 1978 | 15,000,000 | 5,000,000 | 5,000,000 | 4,999,996 |
| 1979 | 20,000,000 | 5,000,000 | 6,000,000 | 6,000,000 |
| 1980 | 20,000,000 | 6,000,000 | 6,000,000 | 5,992,268 |
| 1981 | 10,000,000 | 7,000,000 | 6,000,000 | 6,000,000 |
| 1982 | 15,000,000 | 6,000,000 | 5,760,000 | 5,760,000 |
| 1983 | 15,000,000 | 0 | 6,000,000 | 6,000,000 |
| 1984 | 15,000,000 | 0 | 6,000,000 | 6,000,000 |
| 1985 | 15,000,000 | 0 | 6,000,000 | 6,000,000 |
| 1986 | 15,000,000 | 0 | 5,742,000 | 5,742,000 |
| 1987 | 10,000,000 | 0 | 6,000,000 | 6,000,000 |
| 1988 | (*) | 0 | 5,744,000 | 5,744,000 |

* According to the Higher Education Amendments of 1986 (Public Law 99-498), $10,000 was authorized for FY 87 and such sums as deemed necessary for 4 succeeding years.

---

## TABLE 2
## GRANT AWARDS AND ALLOCATIONS
## 1978-1988

| YEAR | # OF PROPOSALS SUBMITTED | # OF PROPOSALS FUNDED | %FUNDED | ALLOCATION ($MILLION) | AVERAGE GRANT |
|---|---|---|---|---|---|
| 1978 | 101 | 20 | 20 | 5 | $249,999 |
| 1979 | 87 | 26 | 30 | 6 | 230,769 |
| 1980 | 71 | 22 | 31 | 6 | 272,375* |
| 1981 | 91 | 30 | 33 | 6 | 200,000 |
| 1982 | 79 | 35 | 44 | 5.8 | 165,000 |
| 1983 | 82 | 35 | 43 | 6 | 171,429 |
| 1984 | 97 | 35 | 36 | 6 | 171,429 |
| 1985 | 92 | 43 | 47 | 6 | 139,535 |
| 1986 | 97 | 38 | 39 | 5.7 | 151,105 |
| 1987 | 80 | 37 | 46 | 6 | 162,162 |
| 1988 | 93 | 39 | 42 | 5.7 | 147,282 |

*This figure does not include eight small grants awarded to several 1979 II-C recipients with unexpended 1979 funds

## TABLE 3
## GRANT RECIPIENTS, BY TYPE OF INSTITUTION

| | |
|---|---|
| PUBLIC ACADEMIC | 56* |
| PRIVATE ACADEMIC | 30 |
| PRIVATE NON-ACADEMIC** | 18 |
| PUBLIC NON-ACADEMIC*** | 5 |

* Includes 44 direct grantees and 12 institutions that have never been a grantee.
** Includes history/literature (8), scientific (7), art museum (2), and other (2) institutions.
***Includes public libraries (3), state libraries (1), state departments of education (1).

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## TABLE 4
## NUMBER OF GRANTS PER INSTITUTION
## 1978-1988

| NUMBER OF GRANTS RECEIVED 1978-1988 | NUMBER OF INSTITUTIONS |
|---|---|
| 1 | 26 |
| 2 | 18 |
| 3 | 11 |
| 4 | 13 |
| 5+ | 30 |

*Institutions receiving 2 or more grants in the same fiscal year include:

| | |
|---|---|
| 1. University of Chicago | 1980 |
| 2. University of Michigan | 1985 |
| 3. University of Pittsburgh | 1985 |
| 4. Hoover Institution | 1987 |
| 5. University of California-Berkeley | 1987 |
| 6. University of Illinois-Urbana | 1987 |
| 7. Indiana University | 1988 |
| 8. Hoover Institution | 1988 |
| 9. SUNY-Buffalo | 1988 |
| 10. University of Wisconsin | 1988 |
| 11. University of California-Berkeley | 1988 (3) |

## TABLE 5
## PERCENT OF FIRST-TIME GRANTS, 1979-1988

| YEAR | PERCENT OF GRANTS GIVEN TO FIRST-TIME RECIPIENTS |
|---|---|
| 1979 | 39 |
| 1980 | 14 |
| 1981 | 43 |
| 1982 | 31 |
| 1983 | 23 |
| 1984 | 26 |
| 1985 | 17 |
| 1986 | 15 |
| 1987 | 6 |
| 1988 | 19 |

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## TABLE 6
## DISTRIBUTION OF GRANTS
## BY GEOGRAPHIC REGION, 1978-1988

REGION

| 1-New England | 48 Grants | 10 Institutions |
|---|---|---|
| | Direct Grant | Joint Participant |
| American Antiquarian Society | 2 | |
| Boston Public Library | 7 | |
| Brandeis University | 1 | |
| Brown University | 6 | |
| Dartmouth College | 5 | |
| Harvard University | 11 | 2 |
| MIT | 5 | |
| University of Connecticut | 2 | |
| University of Vermont | 3 | |
| Yale University | 6 | 3 |

-Continued-

**Table 6--Continued**

| 2-NY, Puerto Rico and Virgin Islands | 52 Grants | 14 Institutions |
|---|---|---|
| | Direct Grant | Joint Participant |
| American Museum of Natural History | 9 | |
| Columbia University | 4 | 1 |
| Cornell University | 6 | 2 |
| Metropolitan Museum of Art | 1 | |
| New York Botanical Garden | 2 | 6 |
| New York Historical Society | 3 | |
| New York Public Library | 7 | |
| New York State Education Dept. | 3 | |
| New York State Library | 2 | 3 |
| New York University | 2 | 1 |
| Pierpont Morgan Library | 2 | |
| SUNY-Buffalo | 7 | |
| Syracuse University | 2 | |
| University of Rochester-Eastman School | 2 | |

| 3-Mid-Atlantic | 39 Grants | 13 Institutions |
|---|---|---|
| | Direct Grant | Joint Participant |
| Academy of Natural Sciences | 3 | |
| Carnegie Museum of Natural History | 1 | |
| Folger Shakespeare Library | 5 | |
| George Washington University | 2 | |
| Georgetown University | 2 | |
| Johns Hopkins University | 4 | |
| Princeton University | 8 | |
| Rutgers University | 1 | |
| Temple University | 1 | |
| University of Delaware | 0 | 4 |
| University of Maryland | 3 | |
| University of Pennsylvania | 5 | |
| University of Pittsburgh | 4 | |

-Continued-

Table 6--Continued

| 4-Southeast | 29 Grants | 18 Institutions |
|---|---|---|
| | Direct Grant | Joint Participant |
| Auburn University | 1 | |
| Duke University | 4 | 2 |
| Emory University | 1 | 3 |
| Florida State University | 0 | 3 |
| Georgia Institute of Technology | 0 | 1 |
| North Carolina State University | 0 | 5 |
| University of Alabama | 0 | 4 |
| University of Florida | 3 | 1 |
| University of Georgia | 0 | 3 |
| University of Kentucky | 2 | 3 |
| University of Miami | 0 | 3 |
| University of North Carolina | 6 | 2 |
| University of South Carolina | 5 | 2 |
| University of Tennessee | 1 | 3 |
| University of Virginia | 4 | |
| Vanderbilt University | 1 | 1 |
| Virginia Historical Society | 1 | |
| Virginia Polytechnic Institute | 0 | 3 |

| 5-Great Lakes | 33 Grants | 10 Institutions |
|---|---|---|
| | Direct Grant | Joint Participant |
| Cleveland Public Library | 1 | |
| Detroit Public Library | 2 | |
| Indiana University | 10 | 2 |
| Michigan State University | 2 | 3 |
| Ohio State University | 5 | |
| Ohio University | 4 | |
| University of Cincinnati | 1 | |
| University of Michigan | 7 | |
| University of Notre Dame | 1 | |
| Wayne State University | 0 | 3 |

-Continued-

**Table 6—Continued**

| 6-Mid-West | 70 Grants | 16 Institutions |
|---|---|---|
| | Direct Grant | Joint Participant |
| Art Institute of Chicago | 3 | |
| Center for Research Libraries | 7 | |
| Iowa State University | 1 | |
| Missouri Botancial Garden | 6 | 2 |
| Newberry Library | 1 | |
| Northern Illinois University | 2 | |
| Northwestern University | 4 | |
| Southern Illinois University | 4 | |
| State Historical Society of Wisconsin | 4 | |
| University of Chicago | 9 | |
| University of Illinois-Urbana | 12 | |
| University of Illinois-Chicago | 2 | |
| University of Minnesota | 3 | |
| University of Missouri | 3 | |
| University of Wisconsin | 7 | |
| Washington Univeristy | 2 | |

| 7-Southwest | 18 Grants | 9 Institutions |
|---|---|---|
| | Direct Grant | Joint Participant |
| Houston Academy of Medicine | 1 | |
| Louisiana State University | 0 | 2 |
| Rice University | 1 | |
| Texas A & M University | 0 | 2 |
| Tulane University | 1 | |
| University of Arizona | 4 | 1 |
| University of New Mexico | 1 | |
| University of Oklahoma | 2 | |
| University of Texas | 8 | 1 |

| 8-Mountain/Plains | 15 Grants | 5 Institutions |
|---|---|---|
| | Direct Grant | Joint Participant |
| Colorado State University | 3 | |
| University of Kansas | 7 | |
| University of Montana | 1 | |
| University of Nebraska | 1 | |
| University of Utah | 3 | 1 |

-Continued-

**Table 6--Continued**

| 9-Pacific Northwest | 10 Grants | 4 Institutions |
|---|---|---|
| | Direct Grant | Joint Participant |
| University of Alaska | 2 | |
| University of Oregon | 0 | 1 |
| University of Washington | 6 | |
| Washington State University | 2 | |

| 10-California, Hawaii, American Samoa, Guam | 47 Grants | 11 Institutions |
|---|---|---|
| | Direct Grant | Joint Participant |
| Huntington Library | 5 | |
| Stanford University | 8 | 7 |
| Hoover Institution | 6 | |
| UC-Berkeley | 12 | 4 |
| UC-Davis | 1 | |
| UC-Los Angeles | 1 | 3 |
| UC-Riverside | 2 | 1 |
| UC-San Diego | 4 | |
| UC-Santa Barbara | 1 | |
| University of Hawaii | 4 | 1 |
| University of Southern California | 3 | |

### TABLE 7
### GRANTS AWARDED, 1978-1988
### BY PROGRAM FOCUS

| | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bib Control | 9 | 13 | 9 | 13 | 15 | 18 | 20 | 20 | 17 | 22 | 18 |
| Pres | 4 | 5 | 2 | 4 | 1 | 2 | 2 | 8 | 4 | 5 | 2 |
| Coll Dev | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Bib Con & Pres | 0 | 2 | 2 | 6 | 12 | 8 | 6 | 10 | 14 | 7 | 15 |
| Bib Con & CollDev | 3 | 3 | 5 | 4 | 3 | 4 | 2 | 2 | 0 | 1 | 0 |
| Pres & Coll Dev | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Bib, Pres & CollDev | 1 | 1 | 1 | 2 | 3 | 3 | 4 | 3 | 2 | 2 | 4 |
| TOTAL | 20 | 26 | 21 | 30 | 35 | 35 | 35 | 43 | 38 | 37 | 39 |

TALLIES

| | |
|---|---|
| Bibliographic Control/Access | 174 |
| Preservation | 39 |
| Collection Development | 7 |
| Bibliographic Control/Preservation | 82 |
| Bibliographic Control/Collection Development | 27 |
| Preservation/Collection Development | 4 |
| Bibliogrphic Control/Preservation/Collection Development | 26 |

TOTALS

| | |
|---|---|
| Bibliographic Control/Access | 309 - 86% |
| Preservation | 151 - 42% |
| Collection Development | 64 - 18% |

*Figures are based on Department of Education statistics and do not reflect institutional contributions. Institutional contributions, if included, would reflect additional project components.*

## TABLE 8
## ARL LIBRARIES NOT CONDUCTING TITLE II-C PROJECTS AS OF 1988

Arizona State University
Boston University
Brigham Young University
Case Western Reserve University
Howard University
Kent State University
Linda Hall Library
Oklahoma State University
Pennsylvania State University
Purdue University
SUNY-Albany
SUNY-Stony Brook
University of California-Irvine
University of Colorado
University of Houston
University of Iowa
University of Massachusetts

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## TABLE 9
## NON-ARL LIBRARIES RECEIVING TITLE II-C GRANTS

Academy of Natural Sciences
American Antiquarian Society
American Museum of Natural History
Art Institute of Chicago
Auburn University
Brandeis University
Carnegie Museum of Natural History
Cleveland Public Library
Detroit Public Library
Folger Shakespeare Library
George Washington University
Hoover Institution
Houston Academy of Medicine
Huntington Library
Metropolitan Museum of Art
Missouri Botanical Garden
New York Botanical Garden
New York Historical Society
New York State Education Department
Northern Illinois University
Ohio University
Pierpont Morgan Library
State Historical Society of Wisconsin
University of Alaska
University of Montana
University of Vermont
Virginia Historical Society

## TABLE 10
## INSTITUTIONS RECEIVING OVER $1,000,000, 1978-1988

| Direct/primary grantee for joint project | | Number of grants as a non-primary grantee joint participant |
|---|---|---|
| American Museum of Natural History | $1,612,965 | |
| Boston Public Library | $1,279,684 | |
| Brown University | $1,184,595 | |
| Center for Research Libraries | $1,170,349 | |
| Columbia University | $1,025,311 | 1 |
| Cornell University | $1,138,343 | 2 |
| Dartmouth College | $1,067,279 | |
| Harvard University | $2,738,364 | 2 |
| Hoover Institution | $1,186,853 | |
| Indiana University *(2) | $2,555,104 | 2 |
| Missouri Botanical Garden *(6) | $1,387,935 | 2 |
| New York Public Library *(1) | $2,304,730 | |
| Princeton University | $1,099,373 | |
| Stanford University *(1) | $2,541,201 | 6 |
| University of Calfornia-Berkeley *(3) | $4,354,525 | 4 |
| University of Chicago | $1,329,413 | |
| University of Florida *(3) | $1,878,459 | 1 |
| University of Illinois | $1,697,099 | |
| University of Maryland *(3) | $1,313,839 | |
| University of Michigan *(3) | $1,683,373 | 3 |
| University of North Carolina *(2) | $1,602,372 | |
| University of Texas | $1,392,194 | 1 |
| Yale University *(2) | $1,657,851 | 3 |

* Served as primary grantee for joint project. Figure in parentheses indicates number of joint grants.

## TABLE 11
## INSTITUTIONS RECEIVING OVER $1,000,000 -
## AMOUNT OF TOTAL GRANTED FOR JOINT PROJECTS

Indiana University - $506,839
Missouri Botanical Garden - $1,387,935
New York Public Library - $662,816
Stanford University - $400,121
University of California-Berkeley - $2,420,781
University of Florida - $1,878,459
University of Maryland - $1,313,839
University of Michigan - $1,256,000
University of North Carolina - $450,483
Yale University - $825,000

The 6 institutions serving as primary grantees for joint projects that have not received a total of $1,000,000 in Title II-C allocations are Duke University ($670,242 in joint funds), New York Botanical Garden ($498,401), Auburn University ($112,577), University of Virginia ($300,000), University of Rochester-Eastman School ($688,146), University of Washington ($179,378).

## TABLE 12
## LIBRARIES PARTICIPATING IN JOINT PROJECTS, 1978-1988

* grantee for joint project
** never received direct, individual grant

| Institution | No. of Years Participating in Joint Projects |
|---|---|
| Auburn University * ** | 1 |
| Columbia University | 1 |
| Cornell University | 2 |
| Duke University * | 5 |
| Emory University | 3 |
| Florida State University ** | 3 |
| Georgia Institute of Technology ** | 1 |
| Harvard University | 2 |
| Indiana University * | 4 |
| Louisiana State University ** | 2 |
| Michigan State University | 3 |
| Missouri Botanical Garden * ** | 8 |
| New York Botanical Garden * ** | 8 |
| New York Public Library * | 1 |
| New York State Library | 3 |
| New York University | 1 |
| North Carolina State University ** | 5 |
| Stanford University * | 8 |
| Texas A. & M. University ** | 2 |
| University of Alabama ** | 4 |
| University of Arizona | 1 |
| University of California-Berkeley * | 7 |
| University of California-Los Angeles | 3 |
| University of California-Riverside | 1 |
| University of Delaware ** | 3 |
| University of Florida * ** | 4 |
| University of Georgia ** | 3 |
| University of Kentucky | 3 |
| University of Maryland* ** | 3 |
| University of Miami ** | 3 |
| University of Michigan * | 3 |
| University of North Carolina * | 5 |
| University of Oregon ** | 1 |
| University of Rochester-Eastman School * | 3 |
| University of South Carolina | 2 |
| University of Tennessee | 3 |
| University of Texas | 1 |
| University of Utah | 1 |
| University of Virginia * | 1 |
| University of Washington | 1 |
| Vanderbilt University | 2 |
| Virginia Polytechnic Institute ** | 3 |
| Wayne State University ** | 3 |
| Yale University * | 5 |

# PART TWO: CASE STUDIES

## BIBLIOGRAPHIC ACCESS

The range and diversity of bibliographical control or access projects funded by the Title II-C Program since 1978 provide a clear illustration of the research library community's emphasis upon resource sharing and of the advancing technology upon which resource sharing is built. Library resource sharing and improved bibliographic control enhance scholars' research capabilities by making them aware of sources both within their institution and at other institutions. When, for example, each title in a major microform series is cataloged and those records are entered into a national database, scholars become aware of research resources previously accessible only through limited bibliographic tools.

Many projects have been concerned with the creation of original records for materials not represented in national databases or otherwise made widely available to scholars. In addition, many other projects have placed emphasis upon recataloging, reclassification, and the retrospective conversion of manually produced records. While the resulting product of these projects has most often involved the addition of data to the Online Computer Library Center and/or the Research Libraries Information Network, the nation's principal automated bibliographic utilities, bibliographic information also has been recorded through traditional catalog card sets, printed guides and data in microform ranging from microfilm to microfiche catalogs. Bibliographic records also have been contributed to specialized scholarly access tools, among them such varied research aids as the Arid Land Abstracts, the United States Newspaper Project, Agricultural On-Line Access (AGRICOLA), the National Union Catalog of Manuscript Collections (NUCMC), the Eighteenth Century Short Title Catalog (ESTC), and the Cold Regions Data Base. Further, several Title II-C projects have significantly strengthened the national bibliographic data bases by analyzing and cataloging the contents of several large and important microform sets of specialized research materials. Many thousands of titles have been cataloged from such commercially produced microform sets as Early American Imprints, Landmarks of Science, Spanish Drama of the Golden Age, Confederate Imprints, French Revolutionary Pamphlets, and the Goldsmith's-Kress Library of Economic Literature.

A considerable number of Title II-C projects have taken advantage of new technological developments or national programs designed to share bibliographic data. Examples of such projects include those that have exploited RLG's Chinese, Japanese, and Korean (CJK) program and RLIN's capabilities for archival and manuscript control (AMC), the Name Authority Cooperative Project (NACO) and the Conversion of Serials Project to Cooperative Online Serials (CONSER). Less typical bibliographic control projects have been those that planned and implemented local or regional online bibliographic access systems, one that included the establishment of a document delivery system and one that developed a prototype system and procedures for remote input into LC/MARC.

Although bibliographic control projects funded by Title II-C have concentrated on providing access to printed books, there consistently has been a high number of projects to catalog, or otherwise process and make available, important research materials in non-book formats. The scope of projects has included government documents, manuscripts, sheet music and scores, sheet maps and maps in books, printed ephemera, phonograph records, photographs, television scripts and commercials, playbills, scrapbooks, oral history tapes, films, broadsides, trade catalogs, scientific specimens and machine readable data files. All modern European languages as well as many from the near, middle, and far east have been included.

Commenting upon the contributions made by the Title II-C Program in relation to bibliographic access or control, James Michalko, President of the Research Libraries Group states:

> Support for retrospective conversion, for preservation activities, for major bibliographic research projects, and for enhancement and expansion of bibliographic

> standards have all enriched the Research Libraries Information Network (RLIN) data base. These support activities have made unique resources widely available to the nation's scholars and helped strengthen the bibliographic infrastructure that is at the core of United States scholarly success.
>
> I can't report on all of the institutional projects supported by Title II-C that have had a favorable impact on RLIN, but I can mention some compelling examples.
>
> The Archives and Manuscript Collection (AMC) enhancement to the MARC bibliographic standard was begun as part of a grant to Yale, Stanford, and Cornell in the early 1980s. This effort resulted in changes to RLIN that allowed support of archive, manuscript, and special collections cataloging in a shared environment. From that possibility has grown a data base of more than 500,000 records for unique research resources and a program effort that involves more than sixty institutions. It's been the center of a changing perception of the community of interest among archival repositories that has altered the way the profession thinks about its mission.
>
> Exceptionally strong and intellectually coherent collections of material have been described in machine-readable form and the records made available to institutions around the country with the support of Title II-C. At RLG we have taken particular note of the more than 20,000 records of Latin American Titles and the 54,000 records for music titles converted by Yale. Stanford's work on Latin Americana is having a similar impact.
>
> The RLIN data base has been the support tool for two projects that have a national reputation as core bibliographic projects. Stanford's machine-readable cataloging of the Goldsmith-Kress collection and the Short-Title Catalog Project carried out at the University of California-Riverside offices of ESTC North America have been extraordinarily important to scholars and made RLIN an important resource to a wide community of researchers.
>
> Cataloging of noted collections has been done with Title II-C funds, while other funds have supported the preservation of these collections. The University of Minnesota's cataloging of dime novels and the University of California-Berkeley's cataloging of its Japanese wood-block print map collection are two notable examples.
>
> Certainly, this is not an exhaustive list. What I wanted to convey was the resonance provided by Title II-C support. The projects that are carried out have importance well beyond the institutions that are funded. We see this as records appear in RLIN and demand for the data by other institutions and researchers occurs.

In a similar vein, K. Wayne Smith, President of the Online Computer Library Center (OCLC) points out:

> Since 1978, the program's bibliographic control component has provided 107 institutions with 343 grants totalling $51.6 million to create computerized cataloging records of specialized materials and to enter these records into local, state, regional, and national databases. The funds have created new bibliographic wealth that the grant recipients have shared with literally thousands of libraries and millions of library users.
>
> The largest and most comprehensive of the bibliographic databases used by Title II-C grant recipients is operated by OCLC Online Computer Library Center, a nonprofit computer library service and membership organization based in Dublin, Ohio. The OCLC database contains more than 22 million records and 340 million location listings, and grows at a rate of approximately 35,000 records a week, of which 5,000 records come from the Library of Congress and the remainder from OCLC member institutions. The OCLC membership consists of more than 10,000 libraries of all types--academic, research, public, school, government, law, medical, and corporate. Through the OCLC database, libraries have merged their catalogs electronically, making available to libraries and their patrons resources that no single institution could possess.

The bibliographic information generated by the Title II-C program fuels research and scholarship at 10,000 OCLC member institutions. Using the OCLC merged catalog, a student in one library can now rapidly locate materials held at other institutions. By means of another OCLC system, the student can obtain these materials on interlibrary loan. Last year, for example, libraries conducted more than six million electronic interlibrary loans for their students, faculties, and researchers.

The Strengthening Research Library Resources Program has been highly successful in promoting research, education, and scholarship through increasing availability of information in the nation's libraries. Title II-C grants provide a cost-effective, efficient way to help our nation's libraries share our bibliographic wealth with the entire population. The importance of this program cannot be overstated, and we at OCLC urge that it be continued.

## Case Study I

### Missouri Botanical Garden-New York Botanical Garden

The Missouri Botanical Garden and the New York Botanical Garden are two of the most distinguished and comprehensive botanical/horticultural libraries in the world. It is estimated that the two libraries hold over eighty percent of the entire corpus of printed literature in plant taxonomy or systematics, plant distribution and floral studies. The libraries also hold over sixty-five percent of the world's significant published literature in other areas of botanical and horticultural science and gardening. They are particularly strong in all the sub-fields of botany, including plant ecology, anatomy, morphology, and physiology and in related areas of geology, chemistry, geography and mapping, ecology and agronomy. The depth of the two libraries is such that they have served as the principal North American sites for the compilation of Frans Stafleu's and Richard B. Cowans' Taxonomic Literature II, the standard international bibliographic tool in systematic botany.

Despite complementary collections and a long history of cooperation, the libraries of the Missouri Botanical Garden and the New York Botanical Garden did little to coordinate their activities and jointly serve their community of scholars before the advent of the Title II-C Program. Neither collection was well represented in the National Union Catalog, New Serial Titles, or other basic printed bibliographic tools. This situation began to change in 1978, when the two libraries received the first inter-regional joint grant to be awarded through the Title II-C program. Having just joined OCLC, the two libraries utilized Title II-C funding to upgrade the cataloging of their respective printed collections to national standards and to contribute all resulting data to the OCLC database. In the intervening years, Missouri Botanical and New York Botanical have received seven additional Title II-C grants, for a total of $1,886,336, each of which has continued the basic project established in 1978. As stated in their proposals, the purpose of all eight projects has been to increase the accessibility of the collections to the nation's scholarly and academic library communities, the botanical research community particularly, by enriching the OCLC database through the recataloging and retrospective conversion of the libraries of both institutions. Over the years, the great majority of the two libraries' monographs, rare books, and serials have been cataloged or re-cataloged and records contributed to OCLC, and many thousands of manual catalog records have been retrospectively converted to machine readable form.

Illustrative of the positive effect of these projects was the statement of the Missouri Botanical Garden that at the conclusion of its first grant, when it had contributed a total of 5,634 records to OCLC, its interlibrary loan statistics had increased by twenty-one percent and almost half of its interlibrary loan activity had been transacted via OCLC. Of related interest was the fact that while interlibrary loan activity had increased dramatically for all types of interlibrary loan users, it had soared for public libraries, from seven percent of the total to 22.5%. A decade later, this trend was continuing with an annual loan increase of 7.5% at Missouri Botanical in 1988-89. New York Botanical only began using the OCLC interlibrary loan subsystem in 1988-89, and discovered, with an increased loan activity of seventy-four percent, that its first-year interlibrary loan growth using OCLC paralleled that of Missouri Botanical ten years earlier. Although not unexpected, the dramatic increase in both interlibrary loan and on-site use of the collections clearly validated the claims made in all Missouri Botanical-New York Botanical proposals that Title II-C funds had taken nationally important collections and made them into a truly national and international scholarly resource.

After several years of bibliographic control efforts funded by five Title II-C grants, Missouri Botanical and New York Botanical reported that, through the data being added from their libraries, OCLC was becoming comprehensive in its records for the plant sciences. The report stated that in the beginning, the subject areas of the plant sciences had been poorly represented in OCLC as evidenced by the fact that only about forty-five percent of searches conducted had resulted in OCLC hits and that only about twenty-five percent of the searches had resulted in accurate, detailed OCLC records that could be adapted for the two libraries' use. With the addition of records in more recent years from the

National Agriculture Library, the Smithsonian Institution, and other academic and research libraries, the hit rate had improved, but even as late as 1986, roughly one third of all materials searched still required original input into OCLC. Thus, the evidence supported the argument that continued funding from the Title II-C Program not only improved bibliographic control over the collections of the grantee libraries, it also had greatly expanded bibliographic access to an entire scholarly discipline through a national electronic database.

As has often been the case with Title II-C projects, those funded at Missouri Botanical and New York Botanical carried in their wake several unanticipated benefits. Because of the success of recataloging and retrospective conversion, the two institutions were able to further cement additional cooperative programs. Having extensive bibliographic and holdings records for both libraries in OCLC has facilitated the acquisition and cataloging of newly received materials, particularly those for retrospective and out of print purchases. As experience has been gained with mutual patterns of acquisition, more formalized approaches to shared cataloging and acquisitions have been developed, with reductions in unnecessary duplication in cataloging effort and in purchasing for retrospective acquisitions.

Drawing upon their respective OCLC data bases, the two libraries have begun discussing possible joint publication ventures which might include catalogs of pre-Linnaean botanical works, rare books, and other special collections; with the rapid development of database and CD-Rom technology, questions of need and format remain to be explored.

Another by-product of the projects was the systematic identification of conservation needs that led to the establishment of an organized preservation program that has functioned in close cooperation with the cataloging projects; as a result, in a single year at Missouri Botanical the commercial bindery budget was doubled and the in-house bindery performed 1,206 transactions ranging from minor repairs to full restoration. At New York Botanical, general conservation surveys, as well as surveys of specific collections, have been facilitated by more accurate bibliographic records provided through the Title II-C project.

As early as 1979, both libraries observed that considerable publicity and increased public awareness had been generated by the Title II-C grants. Coverage by local press, and by professional botanical and library journals had reinforced their status as specialized libraries of international importance. It was noted also that a number of botanical researchers had indicated both an awareness of the grant award and of its importance to the scholarly community. In addition, the libraries have received over the years a number of other grants, both from private and from publicly funded agencies and foundations; while it could not be stated with certainty how much of this additional outside funding was attributable to the recognition gained from the Title II-C awards, both libraries were of the strong opinion that the heightened awareness generated from Title II-C funding had made other fund raising responsibilities easier.

Scholarly and professional response to the Missouri Botanical-New York Botanical Title II-C project has been enthusiastic. Jayne T. MacLean, Coordinator of the Horticulture Information Center of the National Agriculture Library wrote:

> By entering records of these libraries' holdings of older botanical works into the OCLC shared cataloging database, this project served the dual purpose of increasing accessibility to literature at the host libraries and greatly enhancing a bibliographic online database on which many libraries depend. Prior to the start of the joint project, the OCLC database, which contains records of literature in every subject field, lacked strength in the area of botanical literature. The infusion of records of older and rarer botanical materials from the collections of these two major botanical libraries has greatly increased the usefulness of the database, improving the access of scholars to valuable research resources.... The retrospective records project aids librarians

throughout the country in serving the needs of researchers by contributing to the interlibrary loan system. Many libraries borrow and exchange books using the OCLC database. Thus, the opportunities for botanical research are multiplied nationwide.

Charlotte Tancin, Librarian of the Hunt Botanical Library at Carnegie Mellon University, wrote in a vein similar to Ms. MacLean:

> Information on both libraries' holdings as found in the OCLC database has been extremely useful to us in a number of our own research and research support projects here. For example, Gavin Bridson, our Bibliographer, has been working to produce a supplement of B-P-H: Botanico-periodicum-Huntianum. The original B-P-H [is] a standard reference source for information on serial publications containing articles on the plant sciences and botanical literature published between 1665 and 1965... [but the]... proliferation of published literature in recent times has necessitated the production of a supplemental volume.

Ms. Tancin stated that the B-P-H project made considerable use of the OCLC database in order to verify and complete information for the supplement, and that post-1965 records contributed by Missouri Botanical and New York Botanical were "invaluable in the execution of the project." She added that "information on these major collections has been useful to us in library projects, too. Our own retrospective conversion work has certainly been made easier by the presence of records from two major botanical collections in the database. We also find that availability of materials through interlibrary loan is enhanced by having location information from those collections in the database."

David G. Frodin of the Department of Botany at the Academy of Natural Sciences, Philadelphia, wrote that the Title II-C project had been of great help in producing the second edition of his Guide to Floras. He stated:

> OCLC has proved of invaluable help in locating books (and serials) in North America...[and could be]...used for specifically tailored want lists for Washington, St. Louis and New York, to all of which I made visits.... I believe the efforts to get a wide range of botanical literature on OCLC through special assistance to libraries such as MO and NY has generally paid off. These have covered some eighty percent of my desiderata, whether or not I have actually seen the books there.

Emanuel D. Rudolph, Professor of Botany at Ohio State University, similarly commended the availability of records online:

> Several times, I have been wondering where a particular plant illustration in a book of the eighteenth century or earlier might be found. By checking in OCLC it is now possible to locate those volumes because the Missouri Botanical Garden, the New York Botanical Garden, and the Hunt Institute for Botanical Documentation libraries are all on OCLC. Then, by writing to the particular library, I have been able to get a xerox copy of the desired illustration.

Ian MacPhail, Research Fellow at the Morton Arboretum, provided a particularly strong endorsement for the work accomplished by Missouri Botanical and New York Botanical through their Title II-C grants:

> Ten years ago I compiled a bibliography of the botanical and horticultural works of André Michaux and Francois-André Michaux, two of the major plant explorers in North America at the end of the 18th and the beginning of the 19th centuries. I was able to obtain an OCLC print-out of the location of works of the Michaux held in American libraries, that usefully supplemented the sources then available in the

National Union Catalogue or those that I had been able to find on my own--mainly by laboriously corresponding with libraries that I knew to have collections in the field. In later bibliographies of Thomas Nuttall (1983) and B. S. Barton and W. P. C. Barton (1986), I consulted OCLC with increasing success as the database grew. The adding of the rich holdings of the New York Botanical Garden and the Missouri Botanical Garden has enormously enlarged the botanical and horticultural holdings in OCLC and the possibility of finding obscure or previously unknown editions or issues, and correspondingly simplified the task of future bibliographers.

## Case Study 2

University of Michigan-Michigan State University-Wayne State University

Another early joint Title II-C project was granted in the amount of $1,256,000 to the University of Michigan in 1979, 1980, and 1981. With Michigan State University and Wayne State University cooperating as subcontractors, the three libraries undertook one of the first large-scale serials conversion projects to be funded through the Title II-C Program. Upon completion, over 150,000 serial titles in the sciences, social sciences, and humanities had been converted to the Marc-S format using CONSER standards; more than ninety percent of these titles also had been provided with summary holdings statements. Over 32,000 new titles were added to the national serials database by adding original cataloging or LC cataloging not yet converted to machine readable form; 25,000 existing records were upgraded to CONSER standards. As a result of this Title II-C project the three largest libraries in the state of Michigan were, for the first time, in a position to coordinate their serials procedures. In addition, the project helped launch the ANSI standard for summary holdings statements throughout Michigan and the two national bibliographic utilities, OCLC and RLIN, were greatly enriched through contributed serials data.

Specifically, each of the three participants emerged from the project in possession of a database of machine readable serials records in a standard format and with a standard holdings statement that was used for such products as local union lists, online catalogs, and circulation records. For example, a microfiche Union List was produced from the University of Michigan's RLIN tapes and was widely distributed throughout the state of Michigan via the Michigan Library Consortium.

Also at the state level, the creation of the Michigan Union List was a tangible result of the Title II-C project. Wayne State's library staff assumed a central role in the initial training of other libraries' staffs in the use of the ANSI standard and the OCLC Serials Control System. In addition to the state-wide system, libraries also entered holdings in the appropriate regional union lists and public service and interlibrary loan staffs were provided for the first time with detailed serials information online. In addition to greatly enhancing both OCLC and RLIN, the project had a national impact through the leadership role played by all three libraries in working out interpretations of the ANSI standard for summary holdings and in writing documentation for its use. Further, the University of Michigan was among the first members of RLG to undertake a concentrated serials conversion effort in the RLIN database, and the project therefore had a significant effect upon other RLG members who subsequently began their own serials conversion efforts.

Although it was completed in 1983, the effects of the Title II-C joint serials conversion project in Michigan have continued to be felt, as demonstrated by the experience of the University of Michigan. For five years after the completion of the project, local access to the records created through the Title II-C project was provided by microfiche lists, the automated circulation system, and through RLIN terminals. However, when Michigan inaugurated its online catalog in 1988, direct public access to the machine readable records was greatly enhanced. In particular, the ability of faculty and students to cross electronically the bibliographic boundaries of the library's decentralized collections was of considerable value. Although the evidence is indirect, Michigan's document delivery system, established in 1986, has grown exponentially over the past several years and the data from that service suggest that users in almost every department/school/college are drawing on multiple library collections; this suggests that the availability of all serials holdings in the online catalogue has indeed had an impact upon use.

Richard M. Dougherty, Professor in the School of Information and Library Studies at the University of Michigan, and Director of Libraries at the time of Michigan's Title II-C grant, wrote of the project:

> To begin at the beginning...[Title II-C funded] a large recon project involving UCLA, Berkeley, and Stanford the first year...it involved approximately $2,000,000 and it enabled those three institutions to contribute an enormous amount of information about serials into the national database environment.... I took the idea to Michigan, it was a project that needed to be done and it provided an opportunity for MSU, WSU, and Michigan to work together. From a director's point of view, the Michigan project was enormously successful.
>
> The Michigan project did indeed build upon the earlier recon experience at California. Research generated from overlap studies without exception shows that each library adding records contributes unique records to the total pool. That was the case when comparing Michigan to the California project; it was also true when one compared Wayne State to Michigan, Michigan to MSU, etc.

Sara C. Heitshu, Assistant University Librarian for Technical Services at the University of Arizona and project manager of the Michigan project, stated:

> I have had ample opportunity to reflect on the results of the project and the effect which it had on the participants.... The impact on the three institutions, on southeast Michigan, and on the entire state was immense. In addition, national issues were raised and resolved because of the scope of the project. Finally, individuals benefited directly from the project.
>
> At the three libraries full records were created in machine readable form even where only the most minimal manual records had previously existed. Summary holdings statements were created as well. All three libraries began to adhere to CONSER standards. The work done in OCLC by Michigan State and Wayne State became the basis for the Michigan Union List of Serials, one of the first OCLC serials lists. Many, many smaller libraries in the state were able to build on MSU and WSU's work, thus saving countless hours of staff effort. Wayne State was also able to use the OCLC work to replace another union list which was maintained for the Detroit area. As the 1980s have gone on and serial prices have gone up, I have often reflected on how much more effectively the state of Michigan can share library resources because of the serials conversion work we did between 1979 and 1982....
>
> Michigan's work was instrumental in building the RLIN serials date base. Serials librarians from many libraries in RLG expressed their gratitude to me for the project's clean-up of the CONSER data base. With more than 80,000 Michigan titles in RLIN, it was possible to use RLIN locally as a finding tool. Nationally, many interlibrary loan requests were funnelled to Michigan because it was possible to tell exactly what was held there. The records also led to easier collection development decisions on the RLG Conspectus.
>
> The three libraries were drawn much closer together as the staffs in Detroit, Ann Arbor, and East Lansing worked toward a single goal. Information sharing was constant and it often went beyond project information. The project was also a test site for first ANSI standards for summary holdings. Michigan tested RLIN's implementation and Michigan State and Wayne State tested OCLC's.
>
> The impact today in the three university libraries' online catalogs is obvious. Serials records which represent the most expensive and difficult to locate items in a library's collection are fully represented online. The records also contain summary holdings so that a faculty member in Engineering at Michigan's North Campus has that information on his pc in his office at any time, in a matter of seconds, even though the main campus is a twenty minute bus ride away.
>
> The long term results outside the online catalogs and other automation projects are more subtle to identify. I have long believed that the project identified good people in each library and gave them opportunities to grow which they might not have had otherwise. For example, the project director from Wayne is now heavily involved

in bringing up a NOTIS based network of online catalogs in southeast Michigan. The bridges and contacts she build in the early 1980s are still in place.

The late 1970s and early 1980s were economically difficult years in Michigan. The project attracted some of the brightest and best people in the state as well as recent library school graduates and provided them with employment and a spring-board for their careers. Librarians work all over the nation now in jobs secured based upon their project experience. Talented paraprofessionals found opportunities to attend library school either during or after the project, and they, too, are pursuing successful careers.

Richard W. Bailey, Professor of English at the University of Michigan wrote, "I have made significant use of the University's serials collection in the past few years. MYRLIN has been a great boon to my own work and to my teaching." He added:

> I am interested in the history of the English language, particularly its spread throughout the world. I have thus had occasion to consult our excellent periodical collections in locating material ranging in time and place from Scotland in the eighteenth century to Pakistan in the 1980s. Some of these serials are in storage, and it is a great time-saver to know which I can expect to find on the shelves and which require a special request.... I find MYRLIN a powerful tool and am glad to support continued funding for the portion of the higher education act that supports these innovations. An example of an innovation I would find valuable would be a computerized version of the Wellesley Index to Victorian Periodicals coupled to holdings.

John Shy, Professor of history at the University of Michigan, corroborated Professor Bailey's view, writing:

> My research of the last several years has relied substantially upon serials publications in the University Library system [and] my research in those materials was greatly helped by MYRLIN, particularly in quickly locating journals not in the main (graduate) library, but in cognate fields (anthropology, ethnology, technology, etc.) and kept in divisional libraries on the campus. I work primarily in the fields of early American history and military history and frequently need to locate and use material outside of 'history,' properly speaking.

Scholars in fields other than the humanities also have benefitted from the Michigan serials automation project. Jesse E. Gordon, Professor of Social Work and Psychology at the University of Michigan wrote:

> It is a pleasure to sit with a doctoral student in my office, working on the design of a dissertation research [topic] or on a topic for a preliminary examination and be able to go right to the computer, search almost the entire social science research literature, and give the student a list of references and where they are located on campus. And when a student tells me that s/he can't find any research on a term paper topic, I can check it out almost instantly and get the student headed in a productive direction. In all the history of efforts to get increased use of social science research knowledge, nothing has been more productive than this system for making searches so easy.

Similarly, Joel Howell, Professor of Internal Medicine at the University of Michigan commented:

> My work is in the late 19th- and early 20th- century use of medical technology in the U.S. and the U.K. I have found the computerized records particularly useful for a number of reasons:

1) The library system here is quite decentralized. Thus, being able to check which library has which run of journals saves much time in touring the various sites. (This is particularly relevant when doing multidisciplinary research).
2) Often just knowing the name, name changes, dates, and place of a publication is of itself useful information, as in studying the history of professionalization....
3) These first two are basically arguments for accessibility to the...catalog. Far more powerful is the ability, through keyword searching and appropriate field descriptors, to locate journals the exact names of which one does not know: i.e. journals published in Iowa City, or hospital annual reports from Chicago.

**Case Study 3**

## Stanford University; American Antiquarian Society

Beginning in 1981, the Stanford University Library received five consecutive grants to provide online access to the extensive microcard set Early American Imprints: Second Series. Produced by the Readex Microprint Corporation, Early American Imprints: Second Series was based on American Bibliography, A Preliminary Checklist 1801 to 1819, compiled by Ralph R. Shaw and Richard H. Shoemaker. Consisting of over 50,000 items, the Shaw and Shoemaker work represented the only comprehensive bibliography of American imprints for the early national period and Readex Microprint, by filming these items, made them widely available for the first time by means of microphotography. Constituting a national collection for its period, Early American Imprints: Second Series was viewed as a major asset to the work of sociologists, political scientists, historians, philosophers, students of American culture and thought, and religious scholars. However, while many research libraries owned the microcard set, research access to its contents was limited to the printed bibliography. In the absence of full, title-by-title cataloging, the rich resources contained in Early American Imprints: Second Series remained almost invisible to the majority of library users.

To some degree, the Stanford proposal to the Title II-C Program was in response to the 1979-80 ARL Project on Bibliographic Control of Materials in Microform. The final project report stressed the need for the entry of bibliographic records for microforms into the databases of the two principal bibliographic utilities and it urged that there be a cooperative retrospective cataloging program, funded in part through grants from foundations and federal agencies. The report listed the twelve microform collections most frequently mentioned by libraries as being most in need of electronic conversion, one of which was Early American Imprints: Second Series. The decision by Stanford to convert Early American Imprints: Second Series into machine readable form was one of the first such efforts to be funded by Title II-C, but by no means the last. Also in 1981, Title II-C funded a grant to Indiana University to catalog the microform set English and American Plays of the 19th Century, and in the intervening years other sets have been cataloged, ranging in subject from French Revolutionary pamphlets to the history of science to Confederate imprints to the history of economics.

The Stanford Title II-C project provided thorough bibliographic description and multiple access points in full compliance with national cataloging standards to all titles in Early American Imprints: Second Series. In order to share the data generated through the projects, the records were then contributed to the RLIN database which provided title-by-title access to the collection for many of the nation's major research libraries. In addition, Title II-C funding provided for the production of a computer software subprogram that allows libraries, through "profile matching," to gain access to the records as a collection, rather than title-by-title, thus facilitating their ability to use the records created by Stanford to add local holdings information to all the records through a single transaction rather than by accessing thousands of single records individually.

The audience served by the Stanford Title II-C project was a substantial one. The records were made available locally both in card catalog form and through the University's online catalog, SOCRATES. Through RLIN, the records were shared with several hundred libraries which use the database in various capacities, from bibliographic searching and cataloging to collection development and interlibrary loan. For those libraries which own Early American Imprints: Second Series, the Stanford records served as a guide to their own set and could be used to produce cards or tape records for their own catalogs. Finally, at the conclusion of the project, a tape in full MARC format was made available at nominal cost to other bibliographic utilities and individual institutions, thus insuring that the records reached a nationwide user community.

Increased use of Stanford's set of Early American Imprints: Second Series was observed even from the early days of the project. Directors of Stanford's Microtext Division observed that as early as 1983, user requests were on the rise. It was noted as well that a more diverse group of scholars was using the set, including undergraduates and many outside the disciplines of history and literature. This change was attributed to the increase in the number of records appearing in the Stanford online catalog.

This trend continued and, in a quarterly progress report sent to the Department of Education in 1984, it was pointed out that in the most recent three-month period,twenty-one titles from the set had been requested and that twenty of these had been online records; this statistic was in contrast to the period before the project when it was common to have no more than one request for the set over the same span of time. Further evidence of increased use was given through a comparison of *Early American Imprints: Second Series* to *Early American Imprints: First Series* which had not been added to a database; at the present time the first series is not included in the Stanford online catalog and, in sharp contrast to Series Two, it is rarely requested for use.

Interest in the Title II-C project was in evidence from the beginning. Marcus A. McCorison, Director and Librarian of the American Antiquarian Society (AAS), wrote a strong letter of support for the original Stanford grant proposal. He stated that the microform set of *Early American Imprints: Second Series* "has been edited at the AAS using its collections (which include something more than half of the publications printed in the United States through 1820) as its base." Noting the close connection between *Early American Imprints: Second Series* and the AAS-based North American Imprints Program which has as its goal the creation of machine-readable records for all American imprints through 1876, McCorison added that "Stanford's skills and manpower in its cataloging department are well suited to the efficient production of catalog records of the microforms that exist in the Early American Imprints series."

In commenting upon the local impact of the *Early American Imprints: Second Series* project, David C. Weber, Director of Libraries at Stanford wrote:

> Over 34,000 records now appear in the RLIN national database and our local online catalog for the *Early American Imprints* (EAI) microform set. This material representing American imprints published from 1801 to 1819 embraces all manner of subjects: religion, philosophy, language & literature, history, politics, and science. While most of the titles are in English, there are also works in a number of foreign languages–from ancient Greek, Hebrew, and Latin to modern German and French.
>
> DOE funded Stanford University to do the cataloging. Stanford was able to finish cataloging the analytics for all titles included in the EAI set, and our catalogers did an excellent job. HEA IIC funding made that possible.
>
> This vast body of material provides grist for all sorts of scholarly mills, and the continued interest in this material is reflected in the upsurge in interlibrary borrowing requests made to Stanford since these records first began to appear nationally in RLIN. Prior to that time, this microform set had not been heavily used. While some knowledgeable scholars were aware of its existence, there was not a great demand for it. Its visibility was not even that of an iceberg!
>
> What has made the difference, of course, is online catalog access at Stanford and use of the RLIN and OCLC records by reference or interlibrary loan service staff at other institutions. The irony is that these interlibrary borrowing requests sometimes come from staff in libraries which hold the microform set but who are apparently unaware of the fact! In RLIN or Stanford's online catalog one can search with random keyword and phrase access and find material in a multitude of ways.... In time many more titles in microform sets or in monographic series will be given analytics in OCLC and RLIN. This is a very important achievement that benefits us all, thanks to the availability of HEA funds.

In a Title II-C project complementary to that of Stanford, the AAS cataloged *Early American Imprints: First Series* with grants awarded in 1986 and 1987. With $200,760 in Title II-C funds, AAS cataloged every book, pamphlet, and broadside printed in the American colonies and the United States from 1640-1800. Based upon Charles Evans' American Bibliography, Early American Imprints: First Series also had been published by the Readex Microprint Corporation, and, like its counterpart, the contents of the series had never been cataloged. As was true at Stanford, AAS produced full MARC records for each item in the series and entered the data into OCLC and RLIN. The Title II-C project was carried out in close association with the North American Imprints Program (NAIP), funded by the National Endowment for the Humanities and the Andrew W. Mellon Foundation. Headquartered at AAS, NAIP is a machine-readable catalog of all books, pamphlets, and broadsides printed in America before 1801.

The Title II-C project enhanced the NAIP database to include appropriate notes, subject headings, genre headings, and added entries--elements that are missing from approximately half of the NAIP records. Title II-C funding also provided for the adaptation, through data processing, of the enhanced NAIP records for purposes of serving as the cataloging of the Readex microform edition of these early imprints. While the American Antiquarian project has been complete only a short while, its staff, like their colleagues at Stanford, have noted an increase in use of the microform series.

Among the scholars utilizing the recently produced cataloging of Early American Imprints: First Series is Mark Valeri, Professor of Religious Studies at Lewis and Clark College, who wrote:

> I can say without equivocation that the Early American Imprints: First Series (EAI) is the single most important source for what I do: write about the relation between religious thought and social ethics in early America. I could not get by without EAI; it enters into almost every stage of my research and writing. The series provides quick, well-documented, and indexed access to virtually every primary source printed in my field of interest.
>
> Online (computerized) access to the EAI is crucial to my work in two regards. First, while at the AAS as National Endowment for the Humanities fellow during the 1989-1990 year, I pursued the initial phases of a complex project on religion and economics in eighteenth-century New England. Bibliographic control over the vast amount of printed material from this period was essential, especially since I needed to scan and correlate a series of indirect references to my topic: key words such as money, prices, trade, avarice, usury, etc.... I successfully compiled a list of headings and sources that now constitute the basis of my project.
>
> Second, here in Portland, there is no set of the EAI, and no copy of the Charles Evans bibliography upon which much of the EAI is based. The prospect of having computerized access to the collection from Portland is stunning. It would facilitate my work in dozens of ways. Indeed, it would allow me to pursue ground-level, primary source research of a kind so essential to my research, without having to spend extended amounts of my time and resources on travel to research libraries that hold the EAI.
>
> I wish you all the continued success with the Title II-C proposal, and look forward to continued and even expanded use of the resources provided by the Title II-C proposal.

Similarly, Rosalind Remer, Hamer Dissertation Fellow at the Philadelphia Center for Early American Studies stated:

> I cannot emphasize enough the importance of Early American Imprints: First Series for my work on late eighteenth-century printing and publishing in Philadelphia. There is hardly a research day spent when I do not consult the Evans bibliography, the microfiche, the books when available, and now, RLIN for more detailed bibliographic information than was available before AAS cataloged the Imprints.
>
> My use of RLIN is perhaps unique and, I think, illustrates how essential the AAS project and RLIN itself are for someone in my field. I work closely with publishers' and

> **printers' manuscript account books, letters, and business records. From these, I am constantly puzzled by severely truncated "spine" titles, usually with no other information as to full title, author, or date of publication. Since my work involves the study of the publishers' business practices, as well as their products-- the books themselves--there is only one way to finding such books whose full identities are obscured by cryptic publishers' records. I refer, of course, to searching in RLIN using the title fragments I do have. This method almost always produces positive results. The cataloged entries loaded into RLIN by AAS become bibliographic gold mines for me, allowing me to locate copies, look at them on microfiche or at a location that has a copy, and sometimes compare collations, etc. But most important, the AAS entries give me the most basic information about the books which the publishers I am studying produced.**
>
> **In short, the success of my research hinges on the availability of the information loaded into RLIN by AAS. When a scholar cannot imagine her work progressing without a certain research tool, that tool becomes more than a mere convenience! I certainly hope future projects of this kind will be funded and undertaken, as I know that historians of early America rely more than many realize on such advances.**

In his evaluation of the AAS project James G. Basker, Professor of English at Barnard College, wrote:

> The database was very helpful to me. I was working on a project called 'Johnson and His American Readers' and thus was keen to find every edition of Samuel Johnson's works published in America, and as much about each of those editions as possible. Every detail of the title-page is potentially useful.
>
> The database was a great aid in mapping the publication of Johnson's works in America and in gaining insights about what reading public was targeted (via prices, formats, comments about "for students and schools," etc.)

**Case Study 4**

University of South Carolina

A second example of a non-book format bibliographic control project funded through the Title II-C Program was the cataloging of the Fox Movietonenews Collection at the University of South Carolina. Awarded in three consecutive grants between 1981 and 1983, $401,348 in federal funds enabled the University of South Carolina to catalog online new stories from the years 1919-1934 and 1942-44 contained in some 10,000,000 feet of film that had been transferred to safety film and/or videocassettes.

Until it was superseded by television in the early 1960s, Fox Movietonews was by far the world's largest non-print news service. For decades, film poured into the New York headquarters of Fox Movietone from around the globe, and from that immense, diversified supply would be edited two ten-minute newsreels each week. Fox was affiliated with United Press from its beginning, and by 1922 had acquired more than one thousand cameramen who filmed people, places, and events never before seen by most Americans. With the flight of Lindbergh across the Atlantic in 1927, Movietonews inaugurated the first significant sound film coverage, and beginning in the 1930s, Lowell Thomas, America's premier radio commentator, began his two decades as the "Voice of Movietonews."

Because of its wide scope, the Movietonews Collection serves as a virtual capsule history of much of the twentieth century as seen by the newsfilm camera. The collection provides a visual dimension to world events, social and cultural change, economic trends, and scientific advancement that is available from no other publicly accessible source. In addition, the collection contains thousands of interviews with the leading figures of the first half of the century, including Shaw, Marconi, Edison, Einstein, Rockefeller, Ford, Ghandi, Churchill, Hitler, LLoyd George, Ruth, Gehrig, and every American President from Coolidge to Truman.

Until the collection was given to the University of South Carolina, it was largely unavailable to scholars and remembered only vaguely by generations of movie-goers. The purpose of the Title II-C project was to catalog the film and outtakes in such a manner that the individual news stories would for the first time be accessible to scholars and the general public in an organized fashion. In order to maximize the number of access points and include fields for the many facets of news stories of interest to researchers (e.g. location, content, types of camera shots, personalities, etc.), an online system similar to existing online databases was chosen. With grant funds, the library purchased equipment and the BRS/SEARCH software program through which was developed a record format capable of including all information available from existing documentation, such as the Movietonews card index, cameramen's dope-sheets, etc. In addition, new information obtained by project staff viewing the film itself also was accommodated by the record format. Each record included a story number based on the number assigned originally by the Movietonews staff, story title, cameraman, length of film, type of film (e.g. black and white, sound or silent), story date, location, a summary indicating both content and types of shots (close-up, long shot, panning sequence), and additional subject and name access points assigned by the cataloger.

The cataloging produced by the Fox Movietonews project was highly specialized and was tailored to the idiosyncracies of existing documentation and the peculiarities of the newsfilm format itself, where several stories appeared in each segment. As a result, the project could as easily be characterized as an automated indexing project as it could a cataloging project.

The interest in the Movietonews Collection by local university faculty and national and international film researchers has been impressive since the early days of the project. Writing in support of the Title II-C proposal, Erik Barnouw, Chief of the Motion Picture, Broadcasting and Recorded Sound Division of the Library of Congress wrote that the project "will be of much value to film makers and film scholars, particularly in the documentary field, as well as to researchers in political and social history." Similarly, Arnold Snyder, Manager of the ABC News Library Information Department stated that "we have been frequent users of Movietonews in the past, for news and for feature programs. . . . As you know, we have computerized the ABC News Film and Videocassette library, and each day enter new materials into the data bank. To have a similarly-catalogued system for Movietonews would provide us with an excellent resource."

As a result of the Title II-C project, film has been furnished to the BBC, Television Espanola, the Disney Channel, PBS, and the three major commercial networks in the United States. Inquiries have included such diverse subjects as civil engineering, auto racing, fashion, college football, zeppelins, the Kentucky Derby, and a vast array of political and historical topics. The television series "The American South Comes of Age" made extensive use of the collection, especially of the Montgomery bus boycott and the University of Mississippi riots. A considerable number of productions have been undertaken jointly by the Newsfilm Library and the University of South Carolina's Instructional Services Center; among these ventures were the Movietonews History of the Common Market, a Movietonews History of UNESCO, a history of aviation, tributes to Mark Clark and Helen Hayes, Science Fifty Years Ago, American Black Leaders, and a comparison of German and American newsreel coverage of World War II for a program presented at the 1982 annual meeting of the American Historical Association.

As time has passed, it has been observed that use patterns reflect a broader, more diversified populace indicating to the project's designers and staff that the design of the database, and the easy retrievability of the collection's contents make the Movietonews Collection appealing to the general user as well as to advanced scholars. Indeed, the design of the online database has been so successful that it has been adapted for other purposes: the University's College of Health uses the system for a plan to provide multi-nation service for vector control documents.

One of the scholars whose work has been based upon the Fox Movietonews Collection is Robert E. Herzstein, Professor of History at the University of South Carolina. Professor Herzstein stated that the "computerization of the Movietone collection, including outtakes, made it possible for me to conduct substantial research projects. As a result, I gave several papers at regional and national meetings, published an article in The History Teacher, and greatly improved my teaching--by having . . . cassettes tailored to specific classes. . . . Without the computerized access it would have been impossible to carry out these tasks. We are talking about millions of feet of film, most of it outside the published newsreels. Using the computer, I was able to locate scenes, events, and persons essential to my research on film as a tool for the historian." In his article published in The History Teacher, Professor Herzstein wrote that "Movietone outtakes drawn from the years 1932-1935 are invaluable to the historian of European fascism. . . . These films, when transferred to VHS cassette are ideal for both research and for classroom use. The instructor can provide his or her own narrative. Nor are these mere snippets. They can last anywhere from two or three minutes to two or three hours. . . . these outtakes are often invaluable, throwing new light upon known facts, or exposing new evidence to the light of day."

Not only has Professor Herzstein used the Fox Movietonews Collection as a source of historical data, he also has spoken and written extensively about the scholarly value of the entire collection. For example, in a paper read at the November, 1985, meeting of the Southern Historical Association, Professor Herzstein emphasized the research possibilities that the collection provides for the historian of the world crisis of 1933-1945:

> The research possibilities for the historian extend to the comparative approach. One can compare Movietone's coverage of a personality, event, or era with that contained in other series, such as the great Deutsche Wochenschau.... One can choose

ten or twelve events that reflected and molded the period of world crisis...and compare their treatment in two different newsfilm traditions. Such an analysis may enlighten us regarding national characteristics, perceptions of the masses by elites, suppression of information, technical proficiency, and the role of politics in newsfilm.

## PRESERVATION

Preservation projects funded by Title II-C have emphasized the microfilming of deteriorated books and manuscripts, but there also have been a considerable number of projects involving photographic preservation, the preservation of sound recordings, and a wide variety of item-specific conservation activities. In addition, many projects have included components such as boxing and transferring of materials from general to special collections stacks. In several cases, conservation equipment ranging from photographic and microfilm laboratory equipment to paper conservation and hand binding equipment, has been purchased with Title II-C funds.

Projects which have concentrated on conservation of rare items have utilized a range of current preservation techniques, from simple cleaning and repair to rebinding, encapsulation, remounting, fumigating, and deacidification. Books, manuscripts, prints, architectural plans, photographs, posters, ephemera, and scrapbooks have been the objects of preservation projects.

In describing the contributions made by the Title II-C Program to the conservation and preservation of the nation's scholarly resources, Patricia Battin, President of the Commission on Preservation and Access states:

> Between 1978 and 1988, Title II-C was the leading source of funding for preservation activities, and these grants stimulated and encouraged the development of the perceptions, strategies, and operational experience necessary for the ambitious nationally coordinated program launched in 1989 by the National Endowment for the Humanities. During this period, Title II-C awarded 130 preservation grants to fifty-nine institutions in forty-one states for a total of $13,219.195. The only other substantial source of preservation funding during 1980-1988 was The Andrew W. Mellon Foundation, which granted $3,975,000 to six institutions and/or library consortiums for microfilming projects. The National Endowment for the Humanities did not establish an Office of Preservation until 1986; prior to the launching of a new national initiative in 1989 with an annual budget of $12,000,000 for microfilming and related preservation activities, the NEH grants totalled $4,808,997 for the microfilming of books and newspapers. In its first decade, Title II-C's preservation grants represented approximately double the combined funds available from other sources.
>
> The major strength of the Title II-C program lies in its mandate to support preservation filming and conservation projects in all fifty states in a variety of organizations, ranging from large research universities to historical societies to small, highly specialized collections. It is a vital and essential complement to NEH's new initiative which focuses primarily on a group of large research collections with the intent to reserve, on a cost-effective, massive scale appropriate to these collections, a substantial core of deteriorating materials in the national interest. The two programs, taken together, reflect the realities of the geographic distribution, subject specialization, institutional variety, and unique quality of the nation's distributed research resources. Both programs serve distinctive purposes, and both are vital to the success of our national preservation effort. It is essential that neither effort overshadow the contribution and value of the other.
>
> The statistics indicate that during the years 1978-88, twenty-one percent of the total funding was awarded for "preservation" projects. This traditional definition of "preservation" obscures a truly outstanding contribution of the Title II-C program to the preservation of and access to deteriorating scholarly resources. The overwhelming percentage (seventy-three percent) of Title II-C funds which were expended for bibliographic projects, in essence, laid the groundwork for our current capability to mount an efficient, non-redundant filming program. Many of the bibliographic projects involved the cataloging of highly specialized, unique collections of deteriorating materials, the item-level cataloging of major microform sets held by many libraries,

and extensive retrospective conversion projects, which added thousands of bibliographic records of older materials to OCLC and RLIN. The resulting data bases of machine-manipulative records provide us with important tools to identify and locate materials at risk, to assess collection strengths among the nation's libraries, to eliminate duplication in the reformatting process, and to reduce the burdensome cataloging costs of preserving older materials with often incomplete, substandard bibliographic records. One only needs to look at the fragmented European scene as they struggle to establish a preservation infrastructure to comprehend the significance of the Title II-C program for our long-range preservation goals.

The Title II-C program, because of its awareness of the importance of national standards and convenient access, was instrumental in shaping the policies which support the transition from access to research resources in the institutional context to make them more broad and cooperative. The emphasis on the strengthening and sharing of unique research resources in the national interest encouraged the growing recognition that the emerging technological society would not only facilitate, but would require, access and retrieval capabilities on an international scale. The Title II-C philosophy and objectives encourage participating institutions to contribute standardized bibliographic records of their holdings to national utilities, to adhere to archival filming standards, and to provide convenient access to the broad scholarly community.

The success of our collaborative effort to preserve our intellectual heritage will owe much to the philosophy and unprecedented federal support of the Title II-C legislation. The availability of substantial grant funds to financially straitened libraries, archives, and historical societies throughout the country continues to generate the essential grass-roots involvement we so badly need for the success of a comprehensive preservation program in the national interest."

## Case Study 5

### New York Public Library

From the inception of the Title II-C Program, the New York Public Library has concentrated its project efforts on the preservation of its holdings. As one of the world's most important and most heavily used research libraries, New York Public has a particular obligation to preserve its collections for future generations of scholars. As stated in a recent project report, the library's current approach to preservation is one that has become known as the "Great Collections" approach, a strategy which posits that a large, intellectually important collection should be preserved for the scholar or student as a unit, and that the value of such collections lie in their comprehensiveness and availability at one site. An earlier strategy, in place at New York Public before 1980, stressed spreading preservation throughout the collections, across all subject areas and all types of materials, ranging from recent materials on poor paper to older brittle books, serials, and pamphlets to maps, prints, and rare books. Upon these two strategies, New York Public applied for and received six Title II-C grants in the amount of $2,304,730 for the ten-year period 1978-1987.

The first two Title II-C grants received by New York Public were for general preservation work, including a wide variety of preservation options, but with no specific subject or divisional emphasis. Among the preservation techniques used in these projects were microfilming, microfiching, cleaning, boxing, repairing, rebinding, chemical stabilization, and encapsulation. The 1978 grant funded the filming of 1,447,000 frames of negative microfilm and 150,000 feet of service positives (1,250 reels). Materials filmed included deteriorating volumes in the cataloged collections deemed to be scarce and difficult, if not impossible, to replace by other means; materials being filmed cooperatively with other institutions such as the Library of Congress/New York Public foreign National Gazettes Microfilming Program; recently acquired publications printed on low-grade paper such as newsprint; and recently acquired pamphlets which were microfiched in lieu of binding.

Artifactual preservation was equally important to the production of filmed surrogates in both the 1978 and 1979 Title II-C grants. Through the 1978 grant alone, a total of some 12,000 rare and scarce books, prints, posters, manuscripts and other graphic documents were cleaned, repaired, matted, mounted, and chemically stabilized. Three thousand rare books were rebound, repaired, and/or boxed; between 3,000 and 4,000 manuscripts were treated through mending, encapsulation, and chemical stabilization; 2,500 sheet maps, atlases, and posters (many of which had been withdrawn from use because of their fragility) were repaired and remounted; and 12,000 rare leather-bound volumes were chemically stabilized and lubricated. Another 9,000 items were treated in a similar manner through the 1979 grant.

A third, and highly successful aspect of the 1978 and 1979 grants was the preservation of the library's 94,000 volume general pamphlet collection which had been bound together in volumes of five to twenty titles each and arranged in subject categories. These pamphlet volumes represent a particularly valuable research resource in that they contain items which are unique or scarce and usually not collected by other libraries in the United States. At the same time, pamphlet volumes represent one of the most serious challenges to the library's preservation efforts, since highly acidic pamphlets had been bound together, thus compounding their deterioration. The objectives of the project were to identify and inventory unique pamphlets held by the library; microfilm the pamphlet collection in its entirety; transfer unique titles to the Rare Book Division subsequent to filming; and donate the remaining pamphlets to the principal library in the city, state, or nation of imprint once filming was complete. As a result of the project, over 4,500 rare and/or unique titles were transferred to the Rare Book Division.

In 1981, New York Public was the primary grantee for a joint Title II-C preservation and bibliographic control project conducted with the libraries of Columbia University and New York University. The project was viewed as the genesis of a long-term cooperative resource sharing arrangement that would establish a regional information center for library users in the fields of art and architecture. The proposal envisioned the eventual bibliographic control of all art resources in the three collections, the development of a regional program of coordinated collections development in art-related disciplines, and the establishment of a "best copy" preservation and conservation program. The preservation component of New York Public was, in many ways, a continuation of its two earlier grants in that it concentrated upon the microfilming and cataloging of 5,700 volumes of pamphlets in the field of art. As a result of the project, New York Public continued to preserve the content of fragile, deteriorating pamphlets and, with the two other libraries, helped to expand the national computerized bibliographic record of major art resources by contributing data to RLIN.

In 1984 and 1985, New York Public received Title II-C grants to aid in the preservation and rehabilitation of its nationally significant World War I Collections, a comprehensive resource consisting of periodicals, monographs, pamphlets, broadsides, scrapbooks, maps, and manuscripts. The collection contains over 35,000 items in a dozen languages from more than twenty countries; a five-volume printed catalog of the collection had been published by the G.K. Hall Co. in 1961. It was estimated that some seventy percent of the collection was physically deteriorating and subject to irretrievable loss, primarily because of poor paper quality. Again, the project combined filming and artifactual preservation. Significant titles in very poor condition were filmed if not already available in microform or reprint; scarce, unique, and unusual items were physically preserved; and data was entered into RLIN in order to share bibliographic information and to make the collection itself better known and more widely available. The 1984 grant focused upon the core collection of over 16,000 volumes while the 1985 grant continued the project drawing materials from the library's various divisional units. Through the grant, 2,654 titles were filmed, 4,900 volumes were boxed or preservation cased, 467 volumes were repaired, 421 volumes were rebound, and over 2,000 sheet maps were spray deacidified and encapsulated in mylar. Access to the materials receiving preservation treatment was made possible through entering data into RLIN and OCLC and filing reports to the National Register of Microform Masters and locally through CATNYP, New York Public's online catalog.

New York Public's 1986 Title II-C grant combined a preservation component with both bibliographic control and collection development components. The purpose of the project was to conserve, restore, catalog, and enhance the Slavonic Division's collection of imperial Russian political, social, and literary journals. Specifically, the project preserved, through microfilming, titles not already republished, conserved, or preserved elsewhere; purchased periodical indexes and a limited number of periodical titles deemed to be of greatest importance to scholars; and cataloged materials acquired through the grant along with materials held in the Division's backlog of hardcopy and microform.

Utilizing Title II-C funds, 250 titles were selected for microfilming, many of which were extraordinarily rare single issues of periodicals that appeared in very small print-runs. Many periodicals were placed in wrappers, and acid-free protective jackets were made for many individual volumes. Beyond the direct benefits accrued from the Title II-C grant, the project report noted several important by-products. Perhaps the most significant by-product was its precedent-setting effect. The report pointed out that the Title II-C grant was instrumental in the Division's obtaining a second grant from the National Endowment for the Humanities to preserve and enhance the library's periodical collection for the Soviet period, 1918-1935/40. A second by-product was the creation of an up-to-date inventory of the entire pre-Revolutionary periodicals collection which resulted in a definitive guide scheduled to be published by a commercial publisher (M. E. Sharpe) in 1989.

Viewing the projects in their entirety, the Title II-C Program has had a considerable effect upon the New York Public Library's preservation efforts. Rodney Phillips, Associate Director for Public Services, has stated that the grants "allowed us to preserve materials we would not otherwise have been able to preserve," and that they have "helped NYPL develop, refine, and focus its overall preservation strategy" to the extent that a recent $2,500,000 grant from the National Endowment for the Humanities "represents in its conception a logical outgrowth of the experience the Library has gained from its series of Title II-C grants." Phillips added that the Title II-C grants "have played a crucial role in building our preservation program and establishing our credibility and reputation in the national preservation effort" along with having a "positive effect on our ability to attract funding from other government bodies, foundations, and individual donors."

The 1986 grant project of the Slavonic Division of New York Public is a good example of one that received positive scholarly response. Marc Raeff, Bakhemteff Professor Emeritus at Columbia University wrote:

> Over the years I have intensively used pre-1917 serial publications for my work. For my last book, Russia Abroad, I relied more heavily on post-1917 emigre serials. The pre-Soviet serials contain an extraordinary wealth of documentation, much of it not published anywhere else and also, I must say, frequently ignored by scholars - both Soviet and Western. In some areas--for example, the now fashionable histories of the common people and of daily life--the old pre-1917 serials are a mine of information that still awaits systematic exploration.
>
> As you also well know, these serials are few in number in our libraries --many possessing only fragmentary runs. They are also in deplorable physical condition, as they were printed on very poor paper. They have to be salvaged, for in some instances the West holds sets that may be even incomplete in the Soviet Union. Naturally, a scholar prefers to handle the original books or reprints. But this is an impossible dream--the cost and the space needed make good reprinting unpracticable. Some sort of microfilm, microfiche, or microcard reproduction is therefore the most practical thing, and these should be made as soon as possible, before the original copies disintegrate; and made available at economically feasible conditions to the major research libraries of the world - including the Soviet ones.

In a 1985 letter supporting the grant, Professor Raeff emphasized:

> For a number of reasons, the periodical press - especially the journals - has been at the center of Russian cultural, intellectual, and political life throughout the Imperial period. In spite of censorship (quite mild by comparison to 20th century practices), the journals and newspapers provided a forum or exchange of information and intellectual debate. Their pages carried not only official data, but also facts relating to social, economic, and cultural developments. While the major serials published in the two capitals (Moscow and St. Petersburg) have been often used by scholars, the vast bulk of the provincial press has remained largely untapped. Since specialization was not yet carried very far, journals contained material addressed to a large and diversified audience. Thus, some specialized journals (e.g. diocesan publications) carry information on many subjects not directly related to the area of their specialization. Conversely, general literary and publicistic serials can be mined for data relating to many specialized areas of public and professional life in the Empire.
>
> Naturally, a run of a journal will not only contain a large amount of information, but it can also serve to observe and analyze trends and transformations occurring over a period of time. There will be grist for many mills: the philologist can trace dialectical usage, changes in the language, folklore, etc. The socially and economically minded historian can trace various developments both geographically and chronologically in a way that would be impossible through monographs. The literary historian or critic may track down variants of well known literary works, as well as discover changing literary tastes and judgments.
>
> To this end, of course, it is of particular importance to have complete runs of serials. Unfortunately, such complete runs are rarely available for many journals (especially the provincial ones). The scholar may have to travel to several libraries and reconstitute painfully the complete picture. The project will now correct this

> situation and, upon completion, the New York Public Library will be the place to come to for the study of the journals. Inasmuch as many (if not most) journals of the pre-1917 and early 1920s period were printed on very poor paper, they have been severely damaged. Many are crumbling when touched and thus unusable. The preservation program of the project will correct the situation; it is an absolutely top priority feature of the project.

Writing in support of a second Title II-C proposal, to microfilm 788 titles from the Division's unique collection of illustrated books and photographs from 1730-1940, Mary Jane Rossabi of the Fieldston School in New York stated:

> For over twenty five years, I have been enjoying the resources of the Slavic room and in the last decade, I have spent many hours studying the most valuable and rare compilation of prints and engravings, and as a high school teacher, have even sent some of my students to the New York Public Library's collection for their own enlightenment and research.
>
> Although I have extensively used the Public Library in Cleveland, and the Harvard and Columbia Universities' libraries, the resources in New York are richer in the field of the history of the engraved and printed book, as well as in many allied areas. This irreplaceable collection needs to be preserved since some of its manuscript pages are extremely delicate and perishable.

Similarly, Marshall Winokur, Associate Professor of Russian at the University of Alabama wrote:

> The Slavonic Division of the New York Public Library has an unparalleled collection of nineteenth-century photographic materials. About five years ago, I began to use a unique set of photographic albums containing large-format prints of Moscow. Commissioned by the wealthy Moscow merchant, Nikolai Aleksandrovich Naidenov, the photographic firm of Sherer and Nabgol's produced what can only be described as a photographic encyclopedia of Moscow's architectural monuments, ensembles, street scenes, and suburban areas. The breadth of this photographic series on Moscow remains unsurpassed even today, one hundred years later.
>
> The Russian Revolution has severely altered Moscow's economic, political, and social life. Perhaps no changes were more devastating than those affecting religious life. In an attempt to eradicate the Orthodox faith as well as other forms of organized religion, Soviet authorities began to conduct anti-religious campaigns which, along with city planning and a weak landmark preservation policy, resulted in the destruction and secularization of most of Russia's churches, convents, and monasteries. Naidenov's photogravures preserve "Holy Moscow" in all its glory and entirety. What makes these photogravures so valuable is the fact that they cannot be found elsewhere in U. S. libraries such as those at the Library of Congress, Columbia University, Harvard University, Stanford, Indiana, or other institutions. They are a unique resource, not only for scholars in North America, but for those in Western Europe as well. And these photogravures are representative of numerous valuable photographic materials in the Slavonic Division.
>
> I, perhaps more than any other patron, have been using Naidenov's materials extensively. As a lecturer who has now spoken in approximately 100 colleges and universities in forty states, I often contrast the religious buildings in nineteenth-century Moscow with their state today. Without Naidenov's volumes, this would be impossible. I highly recommend the Slavonic Division be granted funds to microfilm its photographic collections--a legacy that must be preserved for all mankind.

## Case Study 6

### Boston Public Library

Of the seven Title II-C grants received by the Boston Public Library, five have concentrated upon preservation with the emphasis being placed upon the microfilming of deteriorating research materials. For example, Boston Public's 1985 and 1987 Title II-C grants, which totaled $384,543, permitted the library to expand significantly its twenty-year effort to preserve all Massachusetts newspapers; these grants enabled Boston Public to build upon earlier newspaper microfilming projects undertaken in the 1970s, such as a 1975 LSCA Title I Special Project Grant which funded the filming of 567 newspapers from 130 Massachusetts cities and towns.

Keenly aware of Massachusetts' historical importance, Boston Public's commitment to preserving the history of the Commonwealth through the preservation of 300 years of newspaper publication was viewed as a project of national significance. While long runs of major newspapers were the first targets for the project, attention also was given to runs of newspapers which appeared only briefly in support of a particular cause, in response to a particular event, or reflective of an ethnic population. This in-depth aspect of the project involved gathering together these often rare materials, completing files of hard-to-locate papers, and surveying their physical condition. Based upon an earlier survey of over 2,000 repositories, and with the cooperation of many newspaper publishers as well as public and academic libraries throughout Massachusetts, Boston Public, through its Title II-C project, filmed over 10,000 reels of microfilm containing over 2,500,000 frames. Titles filmed included both long runs, for example the Cape Cod Oracle (1949-1980), and papers published for only a short period of time, such as the Barn Swallow (1868-1869). Daily newspapers from sizeable cities such as Haverhill, Quincy, and Holyoke were filmed, as were such special interest titles as the Irish Echo (Jan.-Dec., 1982), L'Aurora (1928-1930), and the New England Farmer (1822-1846).

Using the state-wide survey, the project filmed those newspapers which were most deteriorated. Filming was monitored to insure conformance with the Library of Congress specifications for microfilming of newspapers and cataloging of the film was performed in accordance with the Library of Congress Newspaper Cataloging Manual. Once filmed, the negatives were stored in Boston Public's vault and positive copies were made for research use both at Boston Public and at cooperating institutions. The original newspapers were not discarded, but rather were wrapped in acid-free paper and placed in storage. The results of the project were reported to Newspapers on Microfilm-United States and to the National Register of Microform Masters. In addition, regularly updated editions of Newspapers on Microfilm in the Boston Public Library, which are widely circulated throughout Massachusetts, provided access to the microfilm produced through the project.

The Title II-C grants which supported Boston Public's newspaper filming efforts proved pivotal to the overall success of the library's endeavor. Not only did the grants build on the past, they provided the basis for further funding from the National Endowment for the Humanities. Due to the success of its newspaper identification, filming, and access program, Boston Public applied to the NEH and received funding as the state headquarters of the United States Newspaper Program. The first product of the NEH grant was a listing of all American newspapers on microfilm at Boston Public; also, further cataloging of newspapers was undertaken resulting in machine-readable data to be added to national bibliographic databases for dissemination to researchers nationwide.

Researchers have made extensive use of the newspaper microfilm collection at Boston Public. The Microtext Department circulated 108,000 microforms in 1988, eighty percent of which were newspapers. Of the 86,000 photocopies made in the department, at least eighty percent, again, were from Newspapers on Microform. Use of the collection is varied as well as heavy. Student groups are introduced to newspapers on microfilm through standard class assignments and through research for papers and reports on a variety of subjects. Scholarly use continues through undergraduate college and university papers to doctoral candidates and independent researchers writing major works. Editors, compilers, writers, and publishers query the department for material or verification of material necessary to their work. The use of the newspapers for legal needs extends from photocopies of Sears advertisements for small claims court cases to major cases such as the claims of land ownership by Native American groups.

Arthur Curley, Director and Librarian of Boston Public wrote:

> As a major research library, the Boston Public Library accepts responsibility not only for the intellectual and informational significance of its collections, but also to insure the continuing availability of these collections to the public. In this regard, preservation issues are of increasing importance to the Library. In one way or another, preservation concerns impact virtually every program. At the Boston Public Library we are fortunate that in many areas we have a 'head start' in the preservation of our collections.
>
> One such area is the preservation of newspapers on microfilm. While the Boston Public Library began preserving newspapers on microfilm in the 1930s, the Library has always been in need of assistance from outside sources to meet the demands of this preservation program. In recent years, the support the Boston Public Library has received through the Higher Education Act Title II-C Program, Strengthening Research Library Resources, has been of critical importance. The program has allowed the Library to add newspapers titles to its collection and insure their preservation. At risk newspaper titles from throughout the Commonwealth were identified. Cooperative arrangements were made with other institutions to film these titles. Positive microfilm copies were then made available at both the Boston Public Library and the cooperating institution while the master negative was retained by the Boston Public Library.
>
> The newspaper is a primary research source. This program has been of immense benefit to both the research and library communities. As described in our previously submitted report, 'Contribution of Newspaper Resources to Public Service,' on an annual basis the Boston Public Library circulates over 100,000 microforms, the majority of which are newspapers. Only one-half of these requests are from Boston residents; nearly fifty percent of Library patrons requesting use of microforms reside elsewhere in the state. At the same time, newspaper microfilm contributed to cooperating institutions are used by thousands more.
>
> Use of newspapers on microfilm is extremely varied. As described in the report, use varies from that of the genealogist or secondary school student to that of the scholar, resulting in major works such as J. Anthony Lukas' *Higher Ground*, and Doris Kearns Goodwin's *The Fitzgeralds and the Kennedys*. While no one can judge in advance the value of a given newspaper title, the Library does have the responsibility to make a variety of newspapers available and to insure their preservation.
>
> In addition, this program has had a major impact on the Massachusetts Newspaper Program, a state project of the United States Newspaper Program. Supported by the National Endowment for the Humanities, this multi-year effort to identify, catalog, and preserve on microfilm every available Massachusetts newspaper title has benefited from the hundreds of titles already identified and filmed through the Department of Education Title II-C Program. Preservation microfilming of newspapers is far from complete, but with the assistance and financial support of programs like those of the Department of Education, the Boston Public Library can continue to provide for research needs of the public.

One of the researchers who made extensive use of the filmed newspapers at Boston Public was Linda Vandegrift, who undertook research for Doris Kearns Goodwin's book *The Fitzgeralds and the Kennedys*. Ms. Vandegrift wrote:

The Boston Public Library's holdings of Massachusetts newspapers provided an invaluable resource during the course of my research.... Although the chronology of the life events of the two families, and for that matter, most persons and families of public interest, is recorded in biographies, family papers and other documents, and the details of each event can only be found in local newspaper accounts recorded at the time the incident took place.

My research effort for *The Fitzgeralds and the Kennedys* involved hundreds of hours reviewing the microfilmed newspapers, spanning a hundred-year period, housed at the Boston Public Library. For each incident in the life of one of the characters that Ms. Goodwin chose to include in the narrative, it was my job to find substantiation and bring him or her to life. Newspapers were always the first source checked and resulted in incidents rendered more complete, more vivid by the use of those recorded details. Additionally, these newspaper accounts allow one to establish the context of the events and characters. The slants of the stories, and for that matter, sometimes adjacent articles and advertisements, help one understand the characters in relationship to society at the time. This information is simply not available from any other source.

In my current research work for Ms. Goodwin's next book on the Roosevelts and the Homefront during World War II, I have again been using the Massachusetts papers as well as local papers from across the country in an effort to recreate specific events. For instance, to follow Eleanor Roosevelt on her lecture tours throughout the country, including visits to various factories, shipyards, and hospitals, newspaper accounts have been instrumental in helping to describe Mrs. Roosevelt's movements in detail. The town papers describe her arrival, her attire, as well as her comments given during her visits to various towns. This information which allows a writer to give a human quality to characters and an added dimension of realism to the setting in which the events took place, is recorded no where else.

If the information from the local papers is lost, so is a great deal of historical documentation that lends a richness to writing that would be impossible to reproduce otherwise. I certainly hope that the Boston Public Library is afforded the opportunity to continue this project. I cannot emphasize enough that this information from the newspapers is not available from any other source.

## Case Study 7

### Emory University

In 1986, Emory University received $92,173 in Title II-C funds for the preservation, cataloging and retrospective conversion of important 18th century imprints in the subject areas of philosophy and religion. The library's preservation officer reviewed some 17,000 items and devised a plan to integrate preservation functions with retrospective conversion activities by screening items for immediate refurbishing and treatment following cataloging and using the library's online catalog in a preservation management application for identifying materials for future restoration or preservation microfilming.

Following cataloging, all volumes were cleaned. At this point, items in need of additional refurbishment were flagged. Once basic conservation was completed, all small items were placed in specially constructed envelopes. Others in need of more substantial protection were placed in a four-flap wrapper of Archivart board; still others were queued for more elaborate enclosures to be constructed at a later date.

Because of the size of its project (over 13,000 items were treated during the project) Emory developed, at the outset of its project, a management system to control work flow. Because Emory was serving as a demonstration site for the development of the IBM-based DOBIS/Leuven library automation system, this system was employed as the method to store and retrieve preservation information. A workform to record existing condition and treatment decisions for each item was devised and coded for use in the DOBIS system. A very useful feature of the program allowed information retrieval on characteristics or condition, treatment decision, queue/review/completion date, call number, or free text. These and other access points improved work flow and allowed for the projection of budget requirements and treatment documentation.

The DOBIS preservation management system was intended to have application well beyond the Title II-C project, and this expectation has been borne out. For example, the system currently is used to queue little items, identified through the library's retrospective conversion operation, for future replacement or reformatting.

Debra McKern, Emory's preservation officer has stated:

> Title II-C funding was instrumental in lending credibility to a new (at Emory) and somewhat "foreign" library activity called "conservation." Without the initial grant support, conservation would not have developed into a full-fledged unit at Emory. It was due to the II-C Project that the University agreed to hire a collections conservator in a permanent position to head the unit, with the understanding that the University would continue to fund the position following the grant period.
>
> The II-C Project began at a time when Emory's preservation office was one year old. The Libraries had just completed the ARL/OMS Preservation Planning Program which recommended an organizational structure for preservation consisting of a conservation unit and a reprographics unit. At that time, space for these activities had not been allocated; equipment had not been purchased; staff had not been hired; and procedures had not been drafted or implemented. With the award of funds from Title II-C, these matters took on a much greater urgency. The funds, in an indirect way, allowed a struggling preservation program to become established.
>
> I am particularly grateful to the Department of Education for its support of conservation treatment projects in an environment where preservation microfilming seems to receive greater emphasis. Emory has directly benefited from the improvements in the collection condition as a result of the project. Many of these items were not accessible prior to the grant project and were not in usable condition.

Joan I. Gotwals, Vice Provost and Director of Libraries at Emory wrote:

> The number of faculty and graduate students doing research in [philosophy and religion] at Emory is considerable because of the strength of the School of Theology and the distinguished Departments of History and Philosophy and other interdisciplinary programs focused on material in these areas. In the past, much of the 18th century material was either not easy to identify or not usable because of poor condition.
>
> As a result of the one-year grant project, close to 5,000 volumes were converted to machine-readable form or cataloged for the first time and were cleaned and treated in other additional and appropriate ways for conservation purposes. I might add that a number of volumes were identified in the process that were not previously recognized; some were bound with other volumes and had not been accessible through the shelflist or catalog. All of these volumes are now accessible on the DOBIS online catalog at Emory and on the OCLC data base. As soon as Emory's records are loaded into RLIN, probably sometime this academic year, they will also be searchable there.
>
> On the basis of the experience of our Reference and Collection Management staff, material in these areas is being used for research and graduate projects to a much greater extent than ever before.... Without the grant funding of Title II-C of the Higher Education Act, we would never have had the staff available to start the task of making this material so much more visible and accessible and in a physical condition that made it usable. As it is, Emory's faculty and students and the scholarly community at large have benefitted enormously.

## COLLECTION DEVELOPMENT

Research materials purchased with Title II-C funds have spanned a wide range of subjects in the humanities, sciences, and social sciences. Acquisitions in art, theater, music, mathematics, geology, poetry, philosophy, anthropology, musiology, folklore, aquaculture, economics, and European jurisprudence provide some indication of the diversity of purchases made through Title II-C grants. Area studies and foreign language materials have been acquired frequently with strong emphasis upon Soviet and East European studies, Latin America, and the far east, including south and southeast Asia; in addition, a few projects have concentrated upon Africa and the Pacific islands regions. Certain projects have stressed specific nations, for example Iran, Italy, Mexico, Costa Rica, and India.

Because of the Title II-C Program's emphasis upon advanced research, materials acquired with federal funds have tended to be uncommon, found in few, if any, collections in the United States. Consequently, both current and retrospective research materials purchased with program funds most often have been out of the mainstream of materials routinely acquired through normal library acquisitions policies and procedures. There is no evidence that program funds have ever been substituted for routine acquisitions funds, thus being used for budget relief; rather, federal funds have served as budget enhancement.

In addition to uncommon printed materials, Title II-C funds have enabled libraries to purchase microform editions and facsimiles, sometimes especially commissioned, of rare materials; foreign doctoral dissertations on a wide variety of subjects; rare books; manuscripts and archival collections; foreign newspapers, foreign government documents, technical reports, and environmental data; and rare musical recordings.

Remarking upon the effect of the collection development component of the Title II-C Program, David H. Stam, University Librarian at Syracuse University, and a long-time observer of collection development issues confronted by the nation's libraries, stated:

> Although primary emphasis in Title II-C grants has been on the accessibility and preservation of existing collections in the nation's research libraries, grants for collection development have significantly enhanced those collections with scarce and sometimes unique research materials. In a period when foreign acquisitions have generally suffered (due to drastic increases in serial and periodical costs), Title II-C provided some relief for institutions building research collections in foreign languages and cultures. The range of such coverage is impressive, from Italy, Iran, and India to Latin America and the Soviet Union. The University of Illinois, for example, used Title II-C funds to add 8,000 out-of-print monograph and 300 serial runs on Russian and Soviet history, literature, and scientific fields. Many were unique outside of the Soviet Union and contributed significantly to the growth of one of the strongest Slavic collections in the United States.
>
> The integration of collection development grants with other aspects of the Title II-C program has shown other ancillary benefits. The inclusion of these new collections in national online databases, OCLC and RLIN, has made the initial investment more widely accessible. At least one project led to the development of a coordinated acquisition program of complementary rather than duplicative materials. These grants also created incentives for cataloging and preservation of allied collections, making useful what was formerly inaccessible. Publications and printed guides useful to scholarship have also resulted from these grants. Considering the rather modest funds so far devoted to collection development in Title II-C, the results appear to be valuable far beyond the numbers involved.

**Case Study 8**

## University of Illinois at Urbana-Champaign

The Title II-C grants submitted by the University of Illinois at Urbana-Champaign are unusual in that they have consistently included components for collection development; indeed, three consecutive grants totaling $260,136 were concerned exclusively with collection development. The funded projects have varied widely in terms of the collections which have been strengthened through Title II-C grants, and include Italian history, Slavic mathematical and geological serials, legal history, and Latin American maps. Although Title II-C strengthened the collections owned by and housed at the University of Illinois, the effect of the newly acquired material was national, and in some cases international, in scope. This was true in part because bibliographic information was contributed to OCLC, thus making the nation's scholarly community aware of the material. But Illinois also has made much of the acquired material available through interlibrary loan and in one instance through a document delivery program. One of the Title II-C projects led to a coordinated acquisitions program with another university, whereby the two institutions now acquire complementary rather than duplicative materials.

In 1978 and 1979, Illinois received Title II-C funds to strengthen its holdings in northern Italian history. The basis of the library's strength in this field dated from a large purchase, the Cavagna Collection, made by the university in 1921. With materials dating from the 16th-19th centuries, the collection was especially strong in the political, social, economic, cultural, and religious history of Lombardy, Piedmont, Liguria, Tre Venezie, Emilia-Romagna, and Tuscany as well as such major cities as Milan, Pavia, and Bergamo. Although the collection had been partially integrated into the library's cataloged collections, it was not until the late 1970s that the remainder of the collection, some 20,000 pamphlets, was cataloged and made available to scholars through an NEH grant. Building upon the success of the NEH grant, which verified Illinois' strong holdings in northern Italian history, the Title II-C grant made it possible to add to and greatly enhance the original collection, adding over 1,100 titles in both print and microfilm format. Using the cataloging procedures established through the NEH project, the items purchased with Title II-C funds were cataloged with university funds and all Cavagna materials were integrated into a single file that resulted in a printed guide and a COM catalog.

The same Title II-C grant which funded the Cavagna Collection project also made it possible for Illinois to add materials to its important Russian and Soviet collections; this project was continued by a third grant in the amount of $64,920 (bringing the total to approximately $160,000) in 1980. At the time of the project, Illinois already possessed one of the largest and most complete collections on Russia and the Soviet Union in the United States and it was actively engaged in such activities as an annual Summer Research Laboratory on Russia and Eastern Europe which brought large numbers of scholars to the library to use its Slavic collections. In addition, the library in 1976 inaugurated a Slavic Reference Service in order to share its collections and bibliographic expertise with any individual or institution in this country or abroad needing materials or reference help in the Slavic field. This service acts both as an interlibrary loan operation and a central clearinghouse and resource center for bibliographic and reference information.

From its inception, the library attempted to fill gaps in North American holdings by ordering microfilm from Soviet and European libraries and making the film available through interlibrary loan. With Title II-C funds, the library significantly strengthened its collections by adding 8,000 out-of-print monographs (chiefly on microfilm) and some 300 serial runs unique outside the Soviet Union. Subjects covered by the grant were Russian history and literature; geological and mathematical publications produced in the Soviet Union; and Soviet serials in the social sciences and humanities. One particular focus was the irregular serials published by universities, learned societies, and pedagogical institutes from all across the Soviet Union. Prior to the Title II-C grant, these publications did not exist in complete runs in the United States and their availability, along with the runs of scarce humanities and social science journals constituted one of the most important accomplishments of the project.

In order to make the newly acquired materials known to the widest possible audience, all materials were cataloged into the OCLC database and microfilm records were submitted to the National Register of Microform Masters. In addition a series of "quick lists" of materials purchased with Title II-C funds were compiled and mailed to scholars in relevant fields. In subsequent years, the Slavic Library has continued to benefit from its Title II-C project. Filming in Soviet libraries, which in the form of institutional cost sharing received considerable impetus from the project, has continued at university expense. Participants in the Summer Research Laboratory, which brings on average some 400 Slavic scholars to the Illinois campus annually, use the library's collections heavily. The success of the Summer Laboratory, in the opinion of the staff, is due to the completeness of the library's Slavic holdings and they assert that the Title II-C project added significantly to that completeness.

Illinois' 1981 and 1982 Title II-C grants complemented the mathematics portion of its preceding grants. The two grants, which totaled $266,143, concentrated upon acquiring some 1,500 mathematical monographs ($54,000) and upon creating and entering bibliographic data for all the library's mathematical holdings into the OCLC database. Monographs were identified by surveying titles reviewed in Mathematical Reviews between 1940 and 1979. Illinois estimated that it lacked some twenty-eight percent of the reviewed monograph titles. Acquisition was undertaken through purchase of microfilm, borrowing material and filming locally, and solicitation of gifts from authors and reviewers. Most of the material acquired consisted of eastern and western European university publications, the originals often available only in mimeographed form; European dissertations (primarily Dutch, Swiss, and German) not available through the Center for Research Libraries; and American technical reports. A second component of the 1980 and 1982 Title II-C grants converted/recataloged/reclassed the entire mathematics collection, both monographs and serials, into machine readable form; included in this component of the project were materials acquired through the various Title II-C grants. Data for over 27,000 monographs and 1,400 serials was generated and input into OCLC.

As stated in a publicity release in 1982, the Title II-C investment in data conversion and acquisitions not only strengthened the university's library, it also made the data widely available both through OCLC and through a planned document delivery and reference service being discussed at the time between the library and the American Mathematical Society, publisher of Mathematical Reviews. Today, the document delivery service at Illinois regularly fills requests for materials purchased through Title II-C, both for the staff of Mathematical Reviews and directly from librarians across the country who learned of the mathematics delivery service through publicity given the Title II-C project in print and at national meetings.

In 1983, the Illinois Title II-C project included a $20,000 acquisitions component within a $110,683 project aimed at strengthening and sharing its collections in western European legal codes. Undertaken by the University of Illinois Law Library, this project was based upon the growing scholarly interest in European law and legal systems in the wake of increasing post-World War II American involvement in the European community. In addition to increasing acquisitions, the project's intent was to catalog its European historical law collections via OCLC. Through the Title II-C project, the University of Illinois was the first library to enter data into OCLC using the Library of Congress' new law classification scheme; as a result, the project served as a model and a test case which benefitted the Library of Congress in refining the classification scheme. A commitment to interlibrary loan through the University Library's Interlibrary Research and Reference Center insured that these materials continue to be made available nationally. As part of the project, a catalog of historical materials on the laws and legal systems of western Europe was produced and made available to libraries and scholars nationwide. From the catalog, some 280 titles, many of them long out of print, were identified and acquired for the Law Library from antiquarian law book dealers both in the United

States and abroad. Reprints were also acquired, especially of the West German codes. Gaps in 19th century legal periodicals were filled, and items pertaining to the creation of legal codes were acquired, as were additional commentaries by Continental legal scholars of the past.

In 1984 and 1985, Illinois received a total of $307,529 in Title II-C funding. In both years, one component of the Illinois proposal combined collection development and bibliographic control in a project benefitting the Map and Geography Library. The map project's principal objective was to input the library's map sheet holdings, 30,000 titles and 325,000 sheets, into the OCLC database. It was estimated that the project would increase OCLC's map data by nineteen percent and would greatly facilitate the library's commitment to the interlibrary loan of much of its map collection. In addition to bibliographic control, the grant included a $25,159 component to add to the library's collection of Latin American maps and atlases. Already containing over 25,000 items, the Latin American map collection was characterized in the Title II-C proposal as a nationally important resource and one used by the University of Illinois' own scholars for research in archaeology, the study of settlement patterns, population movement, city planning, and ecological studies. However, as a result of significant increases in the production of Latin American, especially Mexican, maps, availability had outstripped the library's acquisitions budget, a situation the Title II-C project was designed to alleviate. With federal funds, map material from the majority of Latin American nations was acquired, including large purchases from Mexico, Brazil, Colombia, and Argentina; smaller acquisitions were made in several Central American republics, the Bahamas and various Caribbean nations.

In order to build upon the project, a commitment was made by the University to increase its annual allocation for the acquisition of Latin American maps following the completion of the project. This commitment has continued with the result that the University of Illinois has sustained its reputation for strength in the area of Latin American cartography. In addition to strengthening the collection, the Title II-C grant was a factor in the map library's efforts at cooperative collection development. For example, in conjunction with the University of Minnesota, Illinois has elected not to collect large scale maps of Scandinavia, an area in which Minnesota specializes; conversely, Minnesota has deferred to Illinois in the area of Latin American maps.

In 1987, Illinois received $141,969 in Title II-C funds to strengthen its elementary and secondary curriculum and textbook collections; of the total, $38,060 was designed for collection development, and the remainder for bibliographic control. Illinois' Curriculum Collection is one of only a few large historical collections of curriculum textbook materials and as such its 12,000 uncataloged textbooks dating from the late 1800s to the 1970s have had a high level of use since the collection was acquired in 1981. The collection has received numerous gifts from individuals, school libraries, regional library systems, and universities. The goals of the Title II-C project were (1) to catalog the 12,000 uncataloged titles and enter bibliographic data into the OCLC database and (2) to acquire additional historical curriculum materials through purchase from second-hand vendors, and gift/purchase from school districts and academic institutions. Solicitations for gift materials were publicized in such journals as *Education Libraries*, *School Board Journal*, and *Curriculum Review* while the solicitation of older materials were made through a letter campaign to major Illinois and U.S. school districts, especially in Florida, Texas, and New Jersey. Also, site visits were paid to selected geographic locations to solicit and review materials.

To illustrate the value of Illinois' Title II-C grants, scholars who have utilized the library's Russian and Soviet collections were contacted. W. Bruce Lincoln, University Research Professor at Northern Illinois University commented:

> I have published nine books (three Book-of-the-Month Club selections, two History Book Club selections, one Conservative Book Club selection, and one MacMillan Library of World History Book Club selection) during the past twelve years. All of them have made very heavy use of the Slavic Collection at the University of Illinois

Library, and I have acknowledged that debt extensively in the "Acknowledgments" section of each of these books.

The University of Illinois' Slavic Collection is impressive--easily one of the finest outside the Soviet Union.... Materials obtained through Title II-C funds have played a particularly important part in my research at the University of Illinois Library. I visit there on the average of once a month and not a visit goes by when I have not been thankful for the materials provided by Title II-C grants (although, until today, I did not know that Title II-C was responsible).

One of the most difficult types of materials for a researcher to obtain in the West are the *uchennye zapiski* of the numerous scholarly societies, universities, and pedagogical institutes in the Soviet Union, yet these often contain some of the most important and advanced research being done by Soviet scholars. Most libraries' holdings of *uchennye zapiski* and other similar periodicals are scattered and incomplete. People doing research on the Soviet Union live with the perpetual frustration of finding a library that has a much-needed periodical only to discover that the volume needed is not part of that library's holdings.

What makes the Slavic collection at the University of Illinois Library so wonderfully different from other research libraries is that its periodical holdings are so much more extensive and complete. Given the purpose of Title II-C, I now know that we have those grants (supplemented by the work of a dedicated staff whose abilities at running down odd volumes are nothing short of brilliant) to thank for the completeness of the Illinois holdings.

In short, Title II-C grants have helped to build the Slavic Collection at the University of Illinois Library into a very important national resource. I understand the desire of government agencies to be even-handed in doling out their funds and, as a faculty member at a less than major institution, I applaud that. But I think that the University of Illinois' Slavic Collection needs to be exempted from such non-elitist thinking. Given the uniqueness of its holdings, it ought to have all the support that can be given to it. I hope that your study will lead to continued--and increased--support for this vital national resource.

Similarly, Ann Kleimola, Professor of History at the University of Nebraska wrote:

Before reading your letter, I was not familiar with the Title II-C Program or with particular grants given to the University of Illinois Library. In retrospect, however, I am deeply appreciative of the assistance I and other scholars have received from the program, albeit unknowingly. For all practical purposes, the University of Illinois Library has been my 'home' research library for the past twenty years: thanks to the Summer Research Laboratory, I have been able to spend time there almost every summer. The Slavic Reference Service has provided materials year-round on both inter-library loan and microfilm, and has continued to track down and obtain copies of the obscure items that I need every time I begin a new project....

I must conclude that the Title II-C grants clearly have made an immense contribution in enabling the library to build the existing Russian/Soviet collection. The Illinois holdings were impressive twenty years ago, and now they are immeasurably more so. Each year, as I go down my 'shopping list' of items that I hope to find, I am amazed that so many are available. There are, of course, still gaps, particularly in the nineteenth and early twentieth century serial sets and in provincial publications, but over the past few years, a surprising number of these rare volumes have been acquired, clearly through the grants of which I was totally unaware....

I certainly hope that you will be able to secure a larger appropriation this year, particularly since the time appears propitious for making very good use of grants awarded for Russian/Soviet materials. The remarkable changes that have taken place over the past few years have resulted in much freer exchanges among libraries as

> well as in other areas (to cite just one personal example, last year I received materials on inter-library loan from the Lenin Library, something that simply would not have happened a few years ago).
>
> At the same time, we also received a sharp reminder of the fragility of human records with the fire at the Academy Library and the loss of materials not only from the flames but from water damage as well. If some other library had had duplicate copies of those materials, even if only on microfilm, some of the lost items could have been replaced. Thus, it will benefit not only immediate users but the world community and posterity as well to build as complete a collection of Russian and Soviet materials as possible. We should take advantage of the present international climate to do as much as we can along those lines while the atmosphere remains favorable.

Alexander Vucinich, Emeritus professor in the History of Science at the University of Pennsylvania corroborated the assessments of Professors Lincoln and Kleimola. Prof. Vucinich stated:

> In the 1980s I published two books: *Empire of Knowledge: The Academy of Sciences of the USSR (1917-1970)*, Los Angeles: University of California Press, 1984; and *Darwin In Russian Thought*, Berkeley: University of California Press, 1988. At present, I am in the last stages of my study entitled *Relativity and Dialectics: Einstein in Soviet Thought*. The University of California Press has expressed a strong interest in publishing this manuscript. For all these studies, as well as for my earlier books on science and Russian culture, I have depended substantially--at least seventy percent--on the rich and rationally organized library resources of the University of Illinois....
>
> The Title II-C grants from the U. S. Department of Education deserves the main credit for making the University of Illinois not only one of the world's richest depositories of Russian and Soviet books and related published materials, but also a preeminent center for organized research on all aspects of Russian and Soviet history and culture. Special laboratories, conducted every summer during the last two decades, have provided substantial help to hundreds of research scholars. With their assistance, an impressive number of young scholars was initiated into the exhilarating and productive world of creative scholarship. The American academic community has recognized the richness, productivity, and attractiveness of the University of Illinois as a national research center for Slavic and East European studies--all this thanks primarily to the generosity and the vision of the Title II-C Project and to the work of many competent people called upon to carry out its provisions.

**Case Study 9**

Duke University
University of North Carolina at Chapel Hill
North Carolina State University

In 1978, Duke University served as the primary grantee for a major cooperative collection development project that also distributed Title II-C funds to the University of North Carolina at Chapel Hill and North Carolina State University. The purpose of the grants, which totaled $500,000, was to promote continued cooperative collection development among the three institutions and especially to help meet the demands of a growing research community as typified by scholars at the nearby National Humanities Center. With grant funds, the three libraries purchased both current and retrospective research materials that built upon each library's distinct subject and area strengths as agreed upon under existing collection development protocols.

Through the Title II-C project, the Duke library increased its holdings in the history, economics, and literature of post-Revolutionary Russia and Poland, in the latter instance building upon materials acquired earlier through the PL 480 Program. Also acquired were British history and literature materials of the 18th & 19th centuries, including city directories, novels, local history, and microfilm editions of collections of British documents and manuscripts relating to socialism. For the library's Ibero-Latin American Collection, materials pertaining to the history, economy, and culture of Brazil, Peru, Ecuador, Colombia, and Mexico were acquired. Added in the North American area were microfilm runs of several important U.S. newspapers and collections of political papers (e.g. the Henry A. Wallace Papers and a portion of the Columbia University Oral History program). Microfilm of international censuses and of materials dealing with the history of economics added strength to research resources for major areas of the social sciences.

The University of North Carolina library strengthened its Russian holdings for the pre-Revolutionary period. Materials acquired included resources in Slavic linguistics, publications of learned societies outside of Moscow and St. Petersburg, and specialized collections such as those relating to Catherine II and Alexander Pushkin. Additions were made also to the literature holdings of Czechoslovakia, Yugoslavia, Bulgaria, Romania, and Hungary. Latin American materials purchased through the grant emphasized the ideology, institutional, and economic history of Argentina, Chile, and Uruguay; scarce journals from both Spain and Latin America were acquired as well.

In conjunction with Duke, the library purchased a microfiche series of Latin American statistics. For western Europe, additions were made to holdings relating to the intellectual background of European socialism, European universities, and the history of sociology and medicine. An important out of print collection concerned with German political parties and their histories was acquired. To the North American resources were added Civil War novels, mysteries, and detective fiction, and material pertaining to the history of the book, material culture, business and trade history, and the languages of native North Americans.

The scope of North Carolina State University's Title II-C component was narrower than that of Duke or the University of North Carolina. The majority of its funds were expended for two microform collections, the U.S. Patents for 1946-1965, and a sizeable segment of Government Research Reports. The remainder of its funds were used to complete journal runs, primarily in the fields of engineering and entomology, history of science and technology, architecture, and agriculture.

Project reports to the Department of Education consistently pointed to the fact that in addition to strengthening the collections of the three participating institutions, the Title II-C grants had given considerable impetus to the libraries' commitment to cooperative purchasing. While areas of concentration had been designated for several decades, they were reviewed in connection with the project, and were consequently more clearly defined and updated with a view to avoiding duplication and building upon complementary strengths.

John Shipman, University Bibliographer at the University of North Carolina stated at the time that "There can be no question that the [Title II-C grant] for 1980/81 will continue to serve for many years as a landmark in the development of cooperative development programs. Whether it be the materials acquired or the relationships established, the accomplishments under this grant have been noteworthy by any standard." Writing almost ten years later, Joline Ezzell, Special Projects Librarian at Duke stated that the "receipt of this grant, coupled with the steady decline in relative buying power of university libraries in the 1970s and 1980s, served to make 'cooperation' a way of life, rather than an afterthought.... Since the Title II-C grant was awarded, communication among the three collection development staffs has increased. Moreover, the communication is no longer mainly between the heads of collection development. Individual bibliographers working in the same subject at the three libraries communicate regularly."

Mr. Shipman has corroborated Ms. Ezzell's evaluation of the Title II-C project. He wrote recently:

> The Title II-C grants of 1978 and 1980 provided a unique focus for cooperation by supporting the simultaneous development at Duke University, the University of North Carolina at Chapel Hill and North Carolina State University of three specific aspects of cooperative collection development: 1) The creation of an administrative structure for cooperation; 2) The beginnings of an applicable methodology for determining cooperative responsibilities; and, of most immediate relevance to the grant periods themselves, 3) The purchase of substantive library materials by each institution within its defined areas of responsibility. In each instance the influence of the 1978 and 1980 Title II-C grants has been dynamic and lasting.... Twelve years after the Title II-C grant period, selectors at the three institutions continue to meet quarterly.
>
> While significant administrative and methodological changes occurred as part of the Title II-C period, the primary goal of the program was to provide materials within a cooperative framework for the scholarly communities at the three universities and their counterparts at the National Humanities Center. It was this practical objective which resulted in the addition to our collections of a substantial number of scholarly monographs, microfilms, serials and non-print materials dealing with a broad cross-section of subjects.... While most of these materials, and the many others we collected under the Title II-C grant, consolidated existing strengths, many laid new foundations for what would become, over the subsequent years, major areas of faculty teaching and research both at this university and within the Triangle area. As indicated by continued high levels of use, materials added in 1978 and 1980 remain an essential part of more contemporary scholarship.
>
> As is the most obvious intent of all cooperative collection development programs, the distribution of responsibilities for collecting among institutions is meant to increase the overall scope and breadth of materials available to each institution's teaching and research faculty. A related and more subtle objective is to create an environment in which institutional faculty begin to view administratively and physically separated resources as one resource. Under the auspices of the Title II-C grant, this intent was furthered through the materials which were acquired and the ongoing obligations which were established or reinforced.
>
> Twelve years after the Title II-C grant, faculties at the three participant institutions continue to be influenced heavily by the divisions and collections resulting from the Title II-C period. In the past year, UNC's Latin American Institute and Duke's Council on Latin American Studies applied for and were awarded a Mellon Grant. In addition to enhancing Latin American studies at both institutions, this faculty-generated grant includes support toward publishing a joint guide to the two

> Latin American collections. In addition Latin American bibliographers will be provided with an opportunity to travel overseas to continue cooperatively-defined purchases of Latin American materials.... This increasing level of support and recognition by the faculty for cooperative programs owes much to the initiatives, accomplishments, and collections dating from the 1978 and 1980 Title II-C grants.

In an internal report written in 1981, at the conclusion of the second Strengthening Research Library Resources Program grant period, Dr. Patricia Buck Dominguez, Humanities Bibliographer at UNC-CH, aptly summarized the grant's impact by stating that "it has led to a renaissance of the spirit of cooperation among the major Research Triangle universities that dates from the 1930s. The past twelve years of cooperative collection development among North Carolina State, the University of North Carolina at Chapel Hill, and North Carolina State University confirm the importance and durability of this spirit."

Walter Alan Tuttle, Librarian of the National Humanities Center, has stated:

> The collection at Duke University, the University of NC at Chapel Hill, and North Carolina State are more heavily used by the National Humanities Center's Fellows than other collections, indeed, it was the existence of these libraries that invited the attention of the Center's founders to the center of North Carolina. The fields [supported by the Title II-C project] central to the disciplines called the humanities are appropriately supported by the collections in these three libraries, even more so after the expenditures supported by the first two cycles of Title II-C funding....
>
> It is impossible to quantify the value or the effect of being surrounded by the library riches of these three institutions. Their collections have been developed with considerable attention to each other's collections and curricula. Their staff development seems to have occurred complementarily with regard to each other. The cooperative growth of the collections, happening in full view of, and as the work of, the three staffs, has caused an exceptional awareness of the combined collection by their public service personnel. I have put "collection" in the singular in the last sentence because we at the National Humanities Center are not alone in perceiving that the strength of these libraries-in-common is more than the sum of their collection or circulation statistics or the total count of their staffs. The Librarians and the Fellows of the National Humanities Center use the library(ies) of these three institutions as though one.

**Case Study 10**

## University of California at San Diego

In 1983 and 1984, the University of California at San Diego received Title II-C grants totaling $374,518 to acquire, preserve, and process unpublished research materials in Melanesian Studies. Melanesia has long been an important region for anthropological fieldwork among tribal societies, but with the rapid social change occurring in many parts of Melanesia, the nature of anthropological research in the region is also changing. Anthropologists increasingly are turning to libraries and archives as primary sources of research data and the University of California at San Diego's Melanesian Studies Resource Center has built the largest collection on Melanesian ethnology in North America, answering a critical need in the field of anthropology.

Many of the resources in the Melanesian Studies Resource Center were acquired and processed with Title II-C funding. Materials acquired, chiefly through microfilm, included unpublished papers and field notes of Melanesian scholars, both living and deceased; early government documents; newspapers, periodicals, and other serials; and unpublished dissertations. Among the most important material acquired were Australian and British government patrol reports, beginning in the 1890s. For example, much of the exploration of Papua New Guinea was undertaken by patrol officers and the first contact many New Guinea tribes had with western civilization was with members of these patrols. The patrol reports contain some of the earliest written descriptions of many tribes and, as such, are a rich source of information for the history and ethnography of the area. The Center's microfilm set of the Papua New Guinea patrol reports are the only such set available to researchers outside Australia and Papua New Guinea itself. Purchased from the Australian National Archives, this set of patrol reports was supplemented by another such large set acquired in 1989, with University funding, from the Papua New Guinea National Archives. Topics researched in the patrol reports have ranged from traditional salt-making practices to the history of the introduction of tobacco along trading routes.

Microfilm sets of many other archival materials also were added to the collection under the auspices of the Title II-C project. Some of the major additions include the products of the Pacific Manuscripts Bureau (the Center and the University of Hawaii are the only subscribers outside of Australia and New Zealand), the Fiji National Archives, materials relevant to Melanesia produced by the Australian Joint Copying Project, and the archives of various missionary organizations in Melanesia. Most of these materials are unavailable in any other library in North America.

The Center's collections of printed monographs and serials has grown rapidly since 1983, with much of the growth due to Title II-C funding. Approximately half of the collection's 4500 monographs and 400 serial titles were acquired and processed with Title II-C funds. Emphasis also has been placed on collecting theses and dissertations; with assistance from the Title II-C Program, the collection today contains over 750 theses and dissertations produced in universities in the United States, Europe, Australia, New Zealand, and the Pacific Islands.

Again with the assistance of Title II-C funding, the Center has a small but growing collection of original manuscripts and archives for Melanesia. Unpublished papers of prominent anthropologists such as Geza Roheim and John Layard have been acquired, as well as filed notes and other materials from many other anthropologists. Whenever possible, these materials are reproduced on microfiche and distributed free of charge to research libraries in Melanesia, thus preserving unpublished research materials and fulfilling the Center's goal to repatriate the results of anthropological fieldwork to Melanesia.

The Melanesian collection has enhanced the reputation of the University's Department of Anthropology as a center of excellence in Melanesian research. For example, the Center was singled out for praise recently in an outside accreditation committee's report on the department. The outstanding quality of the Center also has been recognized through continued special funding contributed by the University and from outside sources.

Scholarly response to the collections of the Melanesian Studies Resource Center has been highly enthusiastic. Paula Brown Glick, Professor of Anthropology at the State University of New York at Stony Brook, stated:

> I have found that the MSRC has gone very far beyond their original program, chiefly through the active seeking of new materials by Ms. Creely and the UCSD anthropology faculty. Their holdings are unique in the world. I have used PMB materials at other places, and find that they are not adequately catalogued, and some are not clearly readable.
>
> My recent research has utilized materials from Papua New Guinea, mostly from the 1930s onward. Since the original Australian mandate was transformed to an independent country, many reports and documents have been scattered or lost, and personal diaries and documentary collections have been moved, sometimes badly preserved or lost. Papua New Guinea archives are not well catalogued. The Australian sources are scattered, and only a personal search can identify many of these materials. Those in the Australian National Library may be difficult to access in the manuscripts collection. The use of these by Americans requires a costly visit to Australian Archives. I have found that the MSRC is continually adding new materials from Papua New Guinea and Australian sources--these are of inestimable value to my historical research.
>
> My research has not yet made use of the most recent additions of Papua New Guinea patrol reports. I understand from Ms. Creely that the Chimbu province materials are being catalogued, and I hope to begin working with them soon.
>
> Another form of holding in the MSRC is of unpublished and inaccessible manuscripts, which are of a great value to researchers. To give an example, a book published in German, in a special collection made by the Vatican recording the letters and papers of a priest who was killed in 1934, has been lost by the University of Hawaii library, the only U.S. library for which interlibrary loan had any listing. The MSRC would track it down and, if possible, make a copy of it.
>
> Historical materials are of increasing importance to anthropologists and historians working in the Pacific region. I could not have assembled the research materials that are now to be incorporated into my forthcoming book without the MSRC. It is certain that the grants and funds made to the Center will be of continuing value to scholars.

Writing in a similar fashion, Professor of Anthropology Terence E. Hays of Rhode Island College affirmed the importance of the collection:

> I am very pleased to speak on behalf of the MSRC, where I spent two weeks in August of 1989 in relation to two ongoing research and writing projects: a history of the diffusion of tobacco in New Guinea, and a revision of my previously published (1976) bibliography on the New Guinea Highlands. My visit was supported by a grant from the Rhode Island College Faculty Research Fund.
>
> The reason for my visit was that despite the excellence of local and regional libraries (e.g., at Brown, Harvard, and Yale), I needed to read or examine a sizeable number of published and unpublished sources not otherwise available to me. Having followed and supported the activities of the MSRC since its founding, I was confident that many, if not all, of these would be available in their collection.
>
> During my visit I was in fact able to examine, take notes on, or read, fifty-two books and monographs, 135 journal articles and book chapters, and forty masters and doctoral theses and dissertations, none of which was to be found in this region. These,

> of course, represent only a small portion of the sources housed at MSRC. Also of critical importance to my research is the MSRC's collection of Papua New Guinea patrol reports (which, I understand, is continually being augmented). During my visit, I was able to review over 1,000 of these, and obtained invaluable information from them. Apart from the MSRC's collection, these reports are available to scholars only in the Australian Archives (a partial set) and the National Archives of Papua New Guinea. The convenience and economy of being able to examine these reports in the United States are incalculable, as my colleagues have also discovered. The MSRC's collection is the only one in this country.
>
> I have considerable experience with research libraries and especially their Melanesian collections, including those in Australia, New Zealand, and Papua New Guinea. In my opinion, the MSRC's collection (for Melanesia) is the finest and most comprehensive of any in the United States, and few in Pacific countries can match it (indeed, none can, when the collection of patrol reports is considered). Moreover, the facilities available at the Libraries of UC-San Diego, and the hospitality and assistance provided by Ms. Kathryn Creely made my visit a pleasure as well as productive.
>
> While I do not know precisely the extent of the materials in the MSRC's collection obtained through the Title II-C grants, my sense from the report you enclosed with your letter is that without those grants, the MSRC probably would not exist. If that were the case, not only I but all of my colleagues in Melanesian Studies would be the losers.

The international importance of the Melanesian Studies Resource Center was emphasized by Donald Tuzin, Professor of Anthropology and Curator of Anthropological Archives at the University of California-San Diego:

> As an anthropologist specializing in Melanesian cultures and societies, I benefit directly and enormously from the extensive collections of the MSRC. But the value of this extraordinary facility goes far beyond its use to local scholars. It is the nucleus of a recognized center for Melanesian scholarship--one that in the size, quality, and usability of its collections is not matched anywhere in the world. Understandably, it has become a magnet for visiting scholars and a prime source of information and advice for other parties interested in Melanesia.
>
> Of equal importance and long-term significance, however, is the fact that the MSRC is the home of the Melanesian Archive. The Archive is a depository for any and all unpublished materials (manuscripts, reports, notes, letters, etc.) on the cultures of the region. Visiting scholars work directly on these materials, and remote access is achieved through widely circulated accessions lists and microfiche copies of individual titles that can be ordered at nominal cost. Furthermore, microfiche sets of the updated Archive are provided free of charge to a dozen academic institutions in the new nations of Melanesia. The Archive thus serves as a mechanism, unprecedented in world ethnological circles, for the systematic repatriation of ethnographic materials to the host countries of the region. Not only does this feature satisfy a major ethical need, the good will it generates goes far to erase the "imperialistic" overtones with which anthropological research is sometimes (fairly or not) painted.
>
> Seeking not to hoard knowledge but to universalize it, the Archive is thus a major contributor to international relationships conducive to continued free research, one in which academic and visa-granting authorities in the host countries recognize an advantage to themselves in permitting such activity by overseas scholars.
>
> In summary, the Melanesian Studies Resource Center is much more than a boon to myself and UC-San Diego; it serves an entire research community, international in scope and dependent for its intellectual and political vitality on the systematic preservation, dissemination, and repatriation of cultural findings. In these and other

respects, the Center is a phenomenal success--a model. I would suggest, for other ethnographically-focussed collections projects. And none of this would have been possible without the Title II-C Program.

**Case Study 11**

University of Vermont

In 1987 and 1988, the University of Vermont received Title II-C grants totaling $194,286 to acquire, preserve, and make available a large body of Canadian government documents pertaining to the issues surrounding acid rain; of the total, $30,357 was allocated for purposes of collection development. With Title II-C funding, over 1,600 titles (totaling well over 100,000 pages) were identified, of which eighty percent have been purchased by Vermont. The result is that the University of Vermont has, by far, the most comprehensive collection on the subject of acid rain in the United States.

While the published literature on acid rain generally is indexed in traditional and online resources, the large body of literature which emanates from agricultural experiment stations, government agencies, environmental agencies, and state "collection" offices in the United States and Canada make up a large body of material which is very valuable but difficult to locate. With Title II-C funding, Vermont has sought out this "fugitive" material which includes reports, official documents, technical papers and numerous forms of semi-published and casual literature that are not issued through conventional publication channels. The majority of the material acquired is of Canadian origin, and the project was largely unknown in the United States since much of it was not held in U.S. repositories nor was it included in such online sources as OCLC, RLIN, BRS, or DIALOG. Materials were identified primarily by searching ACIDOC, BIOSIS, and a number of databases available only in Canada including ELIAS, CODOC, OON, and AQUAREF. Other documents were identified or acquired through contact with various Canadian government agencies. Various non-government organizations both in Canada and the United States also provided assistance in identifying and/or acquiring documents. Similarly, McGill and Concordia Universities cooperated in the project. In several instances, direct contact with scientists led to additional valuable information; for example, Professor John E. Carrol of the University of New Hampshire donated relevant political material from his personal collection to enhance the acid rain collection.

Materials collected under the auspices of the grant have been made available nationally and internationally. Catalog records have been contributed to OCLC and to AGRICOLA, which is produced by the National Agricultural Library and is available through DIALOG and BRS. Copies of the bibliographic database used in the acquisition of materials were sent to several Canadian libraries and agencies as well. While the dissemination of the documents acquired through the project has been accomplished in part through the use of conventional interlibrary loan, the grant also funded a Compact Disc-Read Only Memory (CD-ROM) product as a means both of preserving and disseminating the documents.

As a participant in the National Agricultural Library's National Agricultural Text Digitizing Project (NATDP), Vermont has contracted to have a subset of the acid rain material (some 45,000 pages) converted and mastered onto CD-ROM discs. Copies of these discs will be distributed to over forty-five land grant universities in the United States as well as to several Canadian agencies and libraries. In addition to the full text of the documents, the discs will contain advanced search and retrieval software. Searchers will be able to produce full text laser printer copies of the original documents. The software can magnify and print enlarged portions of the images as well, which will be useful for the reproduction of graphs and maps.

The value of the acid rain project to the University of Vermont has been considerable. It complements the library's already strong holdings in Canadiana and it has contributed to scientific scholarship in several of the university's academic departments including botany, agriculture and resource economics, geography, natural resources, and zoology. The collection also has proved helpful in the collaborative efforts between air quality researchers at the university and the State of Vermont.

In commenting upon the value of the acid rain collection, Richard Klein, Professor of Botany at the University of Vermont wrote:

> My own research benefited substantially by having available the documents on the topic. Since my group is deeply involved in studying the topic, the availability of well organized holdings allowed us to find relevant reports.... The collection made possible through Title II-C is invaluable not only for our research needs, but also for others throughout the United States and, surprisingly, for Canadians. The topic, acid rain, has a huge literature with reports from government at all levels, research foundations, and college-university groups. We now have no trouble in locating relevant reports and papers and, as the University of Vermont's CD-ROM data files become generally available, their use will continue to increase nationally and internationally.
>
> As personal opinion, I hope that programs supported by Title II-C are continued and expanded to many libraries and to many areas of scholarly inquiry. There are many areas of scientific research in biology and the physical sciences whose international character can only be met by such programmatic information storage and retrieval.

Fred Stoss, Director of the Carbon Dioxide Information Analysis Center at the Oak Ridge National Laboratory stressed the importance of the project in accumulating and making available a large amount of ephemeral documentation that had been produced, but not collected, by public and private Canadian agencies and by state agencies and private groups throughout the United States. He stated:

> While Information Director of the Air Resources Information Clearinghouse at the Center for Environmental Information, I made extensive use of the collection via CD-ROM disc. The major accomplishment of the Vermont project was to identify, work out copyright protocols, and reproduce a large quantity of very difficult to find acid rain documents from across Canada and the United States. Having these documents pulled together, and available on disc was an important achievement. Equally important is the fact that these discs have been distributed to all the U.S. land grant universities, thereby insuring that the information will be available to a large audience. Another potential value of the CD-ROM technology is that, since it does not depend upon telephone lines for access, it can be used by third world countries.

E. J. Miles, Professor of Geography and Director of Canadian Studies 1963-1986, wrote:

> I am quite familiar with the Acid Rain Project conducted at the University of Vermont with federal funds.... My active interest in the project stemmed from two perspectives. As a professional geographer interested in political geography and with a regional interest in Canada, I have been much interested in acid rain and the influence it has had on Canadian-American relations. Secondly, as the founder and director of Vermont's Canadian Studies Program for twenty-three years, I was always interested in any project that would broaden and enhance the library resources of the Program and attract outside scholars and researchers that would provide our students with new perspectives....
>
> There is no question that Title II-C has led to the enhancement of the project's research collection in general. I know this from firsthand association with people in the general environmental area, especially colleagues in the Department of Botany and the School of Natural Resources.
>
> I was at the biennial meeting of the Association for Canadian Studies in the U. S. in San Francisco in November when Albert Joy reported on the project and the

availability of the data collected. There was considerable interest expressed in the project.

I do not have close relations with the government and academic scientific agencies and groups in Canada, but I do know through my dealings with Academic Relations of the Canadian Government at both the Embassy in Washington and External Affairs in Ottawa that the Acid Rain project of Vermont is recognized as a successful major effort in making available to researchers in the U. S. the enormous amount of material produced on acid rain by the Canadian groups.

## GRANTS IN THE FIELD OF MUSIC, 1978-1988

The eleven preceding case studies were selected to illustrate the variety and scope of Title II-C projects within each of the three principal funding priorities established by the authorizing legislation. While this is a valid approach, an equally useful device is to trace all grants made by the Title II-C Program in a specific scholarly discipline. Many opportunities exist for such a series of case studies, but music was chosen because Title II-C grants have been made to the field consistently across the decade, because grants have supported music projects in all three of the program's funding priorities, and because the various music projects provide a particularly good example of the cumulative effect of Title II-C funding within a single, well-defined subject area.

### Yale University--1978

The first Title II-C grant in the field of music was awarded to Yale University in 1978, as part of a larger bibliographic control and preservation grant that totaled $149,800. The project's music component consisted of a preservation project concentrating upon the Yale Collection of Historical Sound Recordings, a heavily used and deteriorating collection of tapes, phonograph recordings, wax cylinders, and manufacturers' catalogs. The grant supported the collection's purpose of preserving and making available for study sound recordings in the fields of western classical and theater music, poetry and literature, and history and politics.

At the time of the grant, the collection consisted of some 100,000 recordings of growing interest to scholars using non-literary, "direct" source material. Some important groups of unique recordings included in the project were the Theatre Guild On the Air Collection which documents many of the greatest performers and productions of the late 1940s and early 1950s, and the originals of the Yale Series of Recorded Poets, which contains commentaries and readings that form an important archive of spoken poetry. Other examples of materials preserved through the project include concert performances, as well as composers rehearsing, performing, and even composing.

A sizeable proportion of the Historical Sound Recordings collection materials were seriously deteriorating at the time of the Title II-C grant. The condition of acetate or lacquer-coated "shellac" discs, crumbling wax cylinders, acetate tapes from the 1950s and 1960s, and 3,000 manufacturers' catalogs of phonograph records on poor quality paper had led to severe restrictions upon the use of the collection. Specific preservation measures undertaken through the grant included the dubbing of sound recordings and the microfilming (120,000 separate photographs) of manufacturers' catalogs according to accepted archival standards. In the case of the sound recordings, the copies were of the type considered to be the most technologically effective stopgap (estimated life span of twenty-five to fifty years) as the community of sound archivists seeks a permanent archival storage medium for sound recordings.

In addition to preservation, the work done during the course of the project and since its completion has provided major improvements in bibliographic access to the materials which previously were often available only in minimal fashion. Since the completion of the project, staff have identified contents of the tape-to-tape dubbings and have compiled for all recordings an index by author/composer and performer so that researchers' questions about holdings can be answered quickly. A positive reading copy of the films of manufacturers' catalogs is kept in the collection, and an index has been prepared.

As a result of the project, and subsequent efforts at improved bibliographic control, it is now possible for researchers to identify materials in the Yale collections and to have access to a valuable body of sound recordings and manufacturers' data heretofore too fragile for use. Without Title II-C funding, little of the work completed through the project would have occurred. In addition, nearly all of the high-quality equipment purchased for the project is still functioning effectively, allowing the Historic Sound Recordings Collection to provide playback of high quality for many types of recordings.

The effects of the Yale Title II-C grant have continued in the decade since the project's completion. The project led to the policy of making preservation dubbings as soon as possible of any recording received on any endangered media such as acetate-base audio tape or instantaneous "acetate" disc, a policy which other archives have adopted as well. Further, the continued exchange of information on cylinder dubbing processes and equipment, which was begun during the Title II-C project, has continued, particularly in cooperation with the Belfer Audio Laboratory at Syracuse University.

As a result of Title II-C funding, according to the final project report, "the history of the first ninety years of sound recording has been enriched by many hitherto unknown details and, more notably, several thousand hours of broadcasts and performances by dozens of outstanding artists and famous personages, which in most cases would otherwise have been lost, now are permanently preserved and easily available to listeners."

## Rutgers University--1979

In 1979, Rutgers University received a $200,000 Title II-C grant for four distinct projects, one of which ($24,888) assisted its Institute of Jazz Studies to preserve and acquire additional materials for its printed, film, and audio collections. Established in 1952 by the late Dr. Marshall Stearns, the Institute's collections were donated to Rutgers in 1966. In the succeeding decade, the collection grew through the donations of materials from such well-known jazz authorities as Nat Hentoff, Rudi Blesh, Leonard Feather, Robert Reisner, and the estates of Walter C. Allen and Charles Edward Smith. At the time of the Title II-C grant, the collection consisted of more than 50,000 phonograph records; numerous tapes, cylinder recordings and piano rolls; a library of some 3,000 books; large holdings in jazz periodicals from throughout the world; record catalogs; extensive research files; and photographs, films, videotapes, memorabilia, and sheet music.

In addition to providing resources for the faculty and students of Rutgers, the Institute of Jazz Studies also provides extensive reference and consultative service to other music collections, archives and libraries, as well as to newspapers, wire services, broadcast networks, general and specialist magazines, and book publishers. It has maintained a strong cooperative association with The Journal of Jazz Studies, and has sponsored many seminars and discographical conferences, often held in conjunction with the Newport and New York Jazz Festivals. The Institute has maintained a strong public presence through its many community and school programs that have brought jazz to the general public.

The array of activities undertaken by the Institute has relied upon the collection of jazz materials collected initially by Dr. Stearns and by his successors at Rutgers. Realizing their importance for scholarship and for public enjoyment, the Institute sought grant support from a number of sources. Prior to the Title II-C grant, the Institute had received a grant from the National Endowment for the Humanities to engage in a project, undertaken in collaboration with the Library of Congress and other sound archives, to catalog its music holdings via computer.

The Title II-C project indirectly complemented the NEH grant in that it provided, for the first time, a budget for acquisitions that allowed the Center to substantially enhance its collections. More than 2,000 phonorecords, many of them out of print collectors' items and limited edition European and Japanese releases, were added to the archives as were 250 book titles, including much ephemeral literature. Subscriptions to periodicals and back issues were obtained, some on microfilm. A significant number of relevant dissertations on film also were added and the Institute was enabled by the grant to subscribe to a clipping service which provided coverage of jazz events in seven major metropolitan areas.

In conjunction with the spending plan, the Institute made a thorough review of all extant jazz record companies in order to identify essential acquisitions for future purchase; this mechanism enabled the Institute to better gauge its acquisitions needs and make stronger budgetary requests to the University in subsequent years. Grant funds also were used to provide for the proper packing and transportation of a major collection of some 10,000 phonorecords and radio transcriptions made available to the Institute by the University of Wisconsin-Milwaukee.

Supplementing the acquisitions component of Rutgers' Title II-C grant was a component that preserved rare periodicals and pamphlets. In addition, a sizeable number of rare photographs were copied, storage units for seventy-eight rpm phonorecordings were acquired and copies of important jazz films from the private collection of David Chertok were copied and acquired by the Institute.

In summary, the Title II-C grant allowed the Institute for Jazz Studies to acquire materials in various formats in order to close the gap between its insufficient financial resources and the great outpouring of jazz materials characteristic of the 1970s. The grant also provided funding to preserve fragile and deteriorating resources for future scholarly research and for the enjoyment of the general public.

### Brown University--1980, 1981, 1982

Beginning in 1980, Brown University received three consecutive multi-project Title II-C grants, each of which contained a component intended to make accessible the library's large and important collections of sheet music. Containing some 500,000 items, Brown's sheet music collections are among the largest in the United States and had long been in heavy demand by scholars. The collections span the 18th century to the present with particular strengths in American music of every type and genre. Because of its size, the collection had never been cataloged, a situation virtually universal among large sheet music collections at the time the Title II-C grants were received.

With $190,566 in Title II-C funds from a total of $606,097 received, Brown set about to catalog 4,936 titles (6,000 items) from its American vocal sheet music into the RLIN database, making use of AACR2 cataloging rules and LC subject headings. An important and innovative aspect of the project was the exploration of the full potential of the MARC scores format, with description of and access to each item in a manner similar to the cataloging treatment of rare books. Concentrating upon music relating to both World Wars, music by and about Afro-Americans, and musical settings of American poetry, the project identified up to forty-two data elements within each cataloging record, depending upon the number of elements present in each item cataloged. Another important contribution of the project was the establishment of some 8,500 name authorities, representing, among many others, composers, lyricists, stage and motion picture performers, publishing firms, and illustrators. A recent sample of 264 name authority clusters generated by the project disclosed that those clusters have aided in the creation of 115 additional clusters by other institutions which employed the Brown-authorized name.

Because many of the procedures used by Brown in its Title II-C project were innovative and widely applicable to other sheet music collections, grant funds were used to produce a manual for processing and cataloging sheet music. Published as technical report number fifteen by the Music Library Association, Sheet Music Cataloging and Processing is today held by twenty-nine RLG institutions and over 200 OCLC institutions. An inspection of sheet music records in OCLC and RLIN reveals that, since the Brown Title II-C project, there have been a number of additional sheet music cataloging projects, among them projects at Dartmouth College and Tulane University which both concentrated on cataloging Afro-Americana. These projects, as well as 19th century sheet music projects at the University of California-Berkeley, Stanford University, and New York Public Library have complemented the work begun at Brown. Catalog records and statements by librarians in other institutions, including Tulane, Duke, and Brandeis Universities, the University of California-Los Angeles and New York Public, provide evidence of the continuing influence of the Brown Title II-C project ten years after its initial sheet music grant.

Brown's 1982 Title II-C sheet music grant, in addition to bibliographic control, contained a preservation component. With grant funding, 2,000 items, mostly musical settings of American poetry, were dry cleaned, washed, deacidified, repaired, and placed into mylar folders and acid-free boxes.

An effort has been made at Brown over the years to gauge the effect of the Title II-C sheet music grants and while the evidence is mostly anecdotal, staff opinion is that collection data added to the national databases through the Title II-C projects has been of considerable use to the scholarly community. A very direct impact was made by the project upon the final volume of the Bibliography of American Literature, compiled by Michael Winship. While sheet music had been included in BAL from its inception, poor institutional bibliographic control had precluded consistent coverage, a fact acknowledged by its compilers.

As a result of the Title II-C project, BAL staff repeatedly used the settings of poetry to music component of the collection, with the result that the final volume in the series contains far more systematic coverage of sheet music than its predecessors. Improved bibliographic control to Brown's Afro-American music is reflected in scholarly endeavors as diverse as investigations into early blues, the music of Bert Williams and Maceo Pinkard, depictions of mandolin playing on sheet music covers, and the compositions of William Grant Still.

### Pierpont Morgan Library--1983, 1984

The Pierpont Morgan Library received a total of $187,131 in 1983 and 1984 for two projects concerned with the preservation and bibliographic control of manuscript materials. One of these projects, which received just over $79,000 in Title II-C funds, concentrated on letters and autograph materials in the Morgan's Gilbert and Sullivan Collection. The collection, generally considered to be the single most complete Gilbert and Sullivan archive, consists of approximately 4,500 autograph letters as well as a large number of letters from other writers of interest, including the composers Massenet, Liszt, Gounod, Fauré, and Saint-Saens; such authors as Lewis Carroll, Robert Browning, Kipling, Conan Doyle, Dickens, Tennyson and Trollope; and actors and singers, including Lillie Langtry, Nellie Melba, Jenny Lind, and Henry Irving. Of special note are two large "letter-press" books, each containing copies (made by transfer to dampened onionskin) of about 1,000 letters written by Sullivan and his secretary. In addition, there are autograph manuscripts of three of Sullivan's operas ("The Pirates of Penzance", "Trial by Jury", and "H.M.S. Pinafore"), typescripts and sketches for a number of Gilbert's plays, contracts, scrapbooks, diaries, programs and posters, photographs, scores and sheet music, libretti, over 3,000 books, and other memorabilia. Together, the collection contains some 25,000 items and, as a consequence, constitutes one of the largest and most important collections of 19th century British theater and music in the United States.

The core of the Gilbert and Sullivan Collection was given to the Morgan in 1949, and over the years the library had augmented the gift with several purchases, notably the papers of Sir Arthur Sullivan. The collection was well-known to scholars prior to the Title II-C grant, primarily by word of mouth, and as a result, the collection sustained considerable use by the scholarly community and by numerous performing groups. Despite its value to researchers, the collection had not been cataloged nor had information about its contents been made fully available to the scholarly community. And while the collection had served as the basis for a number of biographical works dealing with Gilbert and Sullivan, by far the greater portion of the collection remained unpublished and virtually unknown.

The purpose of the Title II-C project was to rectify this situation and to provide protection to the collection by refiling the original documents in acid-free folders. Cataloging data was disseminated through the AMC program of RLIN and through the National Union Catalog of Manuscript Collections. Complementing and based upon the achievements of the project, the Morgan mounted a major exhibition in 1989-1990, entitled "Gilbert and Sullivan, A Window on the Victorian World."

In the first year of the Title II-C project, the letters in the Gilbert and Sullivan Collection were organized and conservation work was completed. About eighty percent of the letters were transcribed using a Digital word processor and data was transferred to an IBM PC; that data is available for full-text searching at the library. Concurrent with this process, handwriting was identified and transcribed, correspondents were identified, letters were sorted, finding lists were constructed, indexes were made, and so forth. In the second year of the project, over forty percent of the letters were cataloged into the RLIN AMC format. These were full AACR2 records, following the highest standards of the RLIN system. In addition, six detailed finding lists were prepared (by name of writer, name of recipient, date of writing, place of writing, provenance, and accession number) and cards were created for the library's union card catalog. The impetus gained through two years' Title II-C funding led the Morgan to complete the project with funding raised elsewhere.

Among the principal long-term benefits of the Title II-C project was the fact that this was the inaugural effort undertaken by the Morgan Library to catalog its manuscripts into a national database, using the latest standards for recon processing in an environment that provides wider access and the potential of shared information. Both the experience gained through the project and an additional RLIN terminal acquired for the project have greatly enhanced the library's capabilities for cataloging manuscript materials and for sharing bibliographic information.

### University of Tennessee--1983

In 1983, the University of Tennessee received $51,918 in Title II-C funds for a project to convert music cataloging records not already found in OCLC into machine readable form. This was the first Title II-C grant awarded for the purpose of cataloging books in the field of music. Grant funds were used for searching all unconverted music records, mainly for scores, monographic publications, and phonorecordings, and for inputting new records into OCLC. Added to the database were 1,145 original records, 13,633 titles identified required conversion and 11,888 were edited. The library committed itself to edit and update all music titles already found in OCLC and to add Tennessee's holdings symbol to the database via retrospective conversion.

Beyond adding significant new data to a national database, the Tennessee Title II-C project was of considerable importance because the grant funded a procedures manual specifically addressing the retrospective conversion of music materials. The completed manual was published in microformat by the ERIC Clearinghouse on Information Resources. Thus, the manual has been made readily available to those libraries with access to the ERIC database or Resources in Education. The manual includes general workflow plans and detailed procedures, pattern changes for music subject headings, series authority file/OCLC equivalents, AACR2 categorical changes for music uniform titles, field by field editing guidelines, a bibliography of sources related to music cataloging and conversion, and sample forms used in the project.

### Syracuse University--1984

In 1984, Syracuse University received $132,360 in Title II-C funds in order to preserve and make bibliographically available the Belfer Audio Laboratory's important collections of recorded cylinders, which date from circa 1890-1920. Founded in 1963 with the acquisition of the Joseph and Max Bell Collection, the holdings of the Belfer Audio Laboratory have since grown to more than 250,000 discs, 7,000 cylinders, and 5,500 tapes. It includes recordings of early radio broadcasts and unreleased discs from major recording studios, as well as the voices of important individuals ranging from Louis Armstrong, to Nikolai Lenin, to Albert Einstein. The laboratory itself, which was constructed in 1982, is the first structure in the world designed specifically for the restoration, preservation, and collection of historic audio materials. A continuous research program promotes advances in speech analysis, computer analysis of sound, optical and laser recording systems, and the cataloging and retrieval of audio material. Re-recording services are provided also to museums, foundations, corporations, and the media.

Utilizing the facilities of the Belfer Audio Laboratory and the library's collection of cylinders, the preservation aspect of the Syracuse Title II-C project consisted of two components: the reorganization and proper storage in steel cabinets of the collection of over 7,000 cylinder recordings; and the re-recording of 1,500 of the cylinder records containing English lyrics or spoken words. Re-recording involved four different techniques; acoustical, two types of electro-mechanical, and optical (laser and fiber optics). Prior to re-recording, all cylinders were cleaned and, as necessary, repaired. In addition to preserving the sonic content of the cylinders, the objective of this segment of the project was to provide data for future studies showing the relative advantages and disadvantages of each re-recording technique.

The various methods of re-recording were undertaken in order to explore different technical procedures and to investigate problems facing the field of re-recording. As of 1984, there were no standardized methods for re-recording and differing professional opinions regarding the best methods for faithfully recapturing sound had led to a certain level of controversy in the the audio archival community. Given this circumstance, and the lack of documented evidence comparing one procedure to another, a major objective of the Syracuse Title II-C project was to test the principal existing re-recording technologies using large enough samples to make feasible future comparative studies of the technologies employed. The acoustic method utilized an original cylinder phonograph system with the sound picked up by microphone and transferred to tape; the laser method was accomplished optically using a laser system invented by the Belfer Audio Laboratory; one of the electro-mechanical techniques employed a commercial device applied to an original phonograph system, and the second utilized a cartridge custom-made at the Belfer Laboratory. All the techniques transferred the recordings to archival reel to reel tape which in turn served as the master for service audio cassettes.

A second significant component of the Syracuse Title II-C project was the development of an innovative bibliographic control program for the cylinder collection. The cylinder itself was used as the primary source for gathering bibliographic information. The cylinder edges, box caps, and inserted sheets were microfilmed and an outside vendor used the photographic image to generate a computer output microfilm index and a MARC formatted computer tape for the collection. The index provided access to titles, personal names, and manufacturers' names linked to issue numbers.

While the microfilm system was basically intended to provide an overview of the entire collection, it was also quite useful at the full cataloging stage. Using the microfilm index and applying rules and guidelines established under AACR2, the ARSC/AAA Rules for Archival Cataloging, and the OCLC Sound Recordings Format, full cataloging was produced through the use of a microcomputer; LC subject headings also were assigned. In order to facilitate future transfer to OCLC, the decision was made to write a software program that permitted the screen of the microcomputer to look as much like an OCLC screen as possible. dBASE III was used to create a standard record that followed MARC format as closely as possible, thus allowing for input into OCLC with a minimum of revision. As demonstrated by the Title II-C project, the use of dBASE III to create a local data base consistent with standard cataloging procedures and formats proved to be of value as a method of bibliographic control for cylinder recordings, regardless of whether the records are input into a national database or comprise a strictly in-house database.

A third component of the Syracuse project was a pilot interdisciplinary retrieval system design that provided a model for non-traditional subject access to sound recordings. This aspect of the project attempted to develop information retrieval guidelines to meet the widely varied needs and expectations of an interdisciplinary group of users. Subject specialists in five different scholarly fields (U.S. History, music and art history, linguistics, and Afro-American history) analyzed 120 of the re-

recorded cylinders, with their transcripts. Each scholar was requested to list any subject headings that occurred to him/her after listening to the recording and reading the transcript.

While there was some agreement among the five scholars, it became apparent that each discipline would use different identifiers to describe and later retrieve each item. The results suggested that if a successful interdisciplinary retrieval system is to be developed it will of necessity require discipline-specific identifiers. The project also demonstrated that even though such a system will require assigning content identifiers on a recording by recording basis, discipline by discipline, such a system will be ideally suited to computer retrieval and mass dissemination.

### Dartmouth College--1985, 1986, 1987

Over a three-year period, Dartmouth College received $733,943 in Title II-C funding to preserve and make bibliographically accessible its collections in theater and the performing arts, collections that contained within them important musical holdings including libretti, programs, playbills, and sheet music. Beginning as a series of scattered collections, Dartmouth had over the years consolidated its theater holdings and had augmented them to the extent that the collection had become a national resource, known as the Williams/Watson Theatre Collection. The purpose of the Title II-C grant was to preserve, catalog, and index the Williams/Watson Collection's 8,000 plays, 15,225 theater programs and playbills, the contents of 4,881 theatrical information files, and 8,977 pieces of sheet music. A total of 37,474 items were cataloged, 21,868 records were added to the RLIN and OCLC databases and 27,477 entries were made into three local specialized databases.

The plays in the Williams/Watson Collection, the majority of which are American and British dating from the 18th to the 20th century, are especially strong in their reflection of tastes in drama, including Victorian melodrama and "ethnic" comedies. Over half the records created through the project were new to the RLIN database and all cataloging was to full AACR2 standard. One special feature was the inclusion of notes regarding the lists of dramatis personae found in many plays which direct the researcher to valuable information about the play's performance history. Preservation staff cleaned each play in need of conservation and prepared appropriate protective enclosures--either acid-free envelopes, portfolios, or phase boxes.

The extensive program and playbill collection, again primarily American and British and containing some 200 souvenir programs and thirty scrapbooks of clippings from programs, was reorganized entirely with the new arrangement being by theater rather than by play title. Arrangement was arranged first by state (U.S.), Province (Canada) or country; within these divisions the plays were arranged by city and then by theater; finally, programs for a single theater were arranged chronologically. Call numbers reflecting this arrangement were assigned to each program in the collection. The 3,000 pre-1911 programs were individually cataloged into the RLIN database with full access points. Post-1910 programs were cataloged in groups by theater, also in RLIN. A specialized local database, called PLAYBILL, was devised to list every play on every program in the collection (many programs consisted of more than one play per performance, especially in the 19th century).

Using a Macintosh database management program called Overvue, data was input to floppy disks and then transferred to the College's online catalog. The PLAYBILL file is indexed by theater name, title of play, year of performance, and performing company. Through PLAYBILL, the project staff also indexed the collections of souvenir programs and some thirty scrapbooks containing programs, photographs, reviews and other miscellaneous ephemera pertaining to the theater. PLAYBILL also enabled the staff to compile a guide to the theatres themselves, including name changes (which were frequent), addresses, and dates of existence. The guide contains much about the history of these theatres, assembled from a variety of printed reference works and histories. For purposes of preservation, each program was placed in an acid-free enclosure, usually an envelope or folder. Several hundred broadside programs were encapsulated in mylar, and a few torn playbills were repaired prior to encapsulation.

Also with Title II-C funds, some 4,000 pieces of sheet music were cataloged to a very high standard of bibliographical description and access. Using the guidelines developed through a Title II-C grant at Brown University, AACR2 rules and LC rule interpretations, the records for 19th century music included such information as composer, lyricist, uniform titles, dedications, publisher's address, illustration type and artist, first lines of text, access points for performers and theatres, subject headings for medium of performance, and topical subject headings for songs. Twentieth century music was cataloged in a similar manner, although fewer access points were provided. In order to provide better access to music in such miscellaneous formats as albums and anthologies of popular songs, items extracted from larger works, and so forth, a specialized local database called G MAJOR was devised as a component of the college's online catalog. The contents of these groupings of music were analyzed in G MAJOR, with searching capabilities by title, composer, lyricist, arranger, date, and type of musical venue (musical comedy, opera, motion picture score, etc.). As with other components of the project, each piece of sheet music was enclosed in an acid-free folder and boxes were made for bound volumes of music in poor condition.

A third local database, entitled THESPIS, was devised to provide bibliographic access to a wide range of theatrical materials, including clippings, publicity stills, drawings, manuscripts, photographs, prints, libretti, pamphlets, and periodicals. The project staff integrated all of the categories covered by the various subcollections into a single file. Materials then were divided into manageable lots following accepted standards for vertical file organization and put into new acid-free folders; newspaper clippings were photocopied onto acid-free bond paper. As the new folders were relabelled, staff compiled machine-readable indexes of folder titles using the Macintosh Overvue program. Each record contains up to five subdivisions and there is a field for notes and cross references from folder to folder; searching is by keyword.

### Associated Music Libraries Group-Eastman School of Music, University of Rochester, Primary Grantee--1985, 1987

In 1985, three members of the Associated Music Libraries Group--the Eastman School at the University of Rochester, Indiana University, and the University of California-Berkeley--initiated a pilot project with Title II-C funds to demonstrate the feasibility of innovative methods and standards for the retrospective conversion of bibliographic information in the field of music. Building upon the pilot project through a 1987 Title II-C grant, Harvard, Yale, Stanford, and the University of Illinois at Urbana-Champaign joined the three pilot institutions and undertook the retrospective conversion of 48,130 manual bibliographic records for printed music for entry into the RLIN and OCLC databases. Funding for both Title II-C projects totaled $688,146, with the pilot project having received $233,000.

Efforts by the Associated Music Libraries Group to engage in a large-scale retrospective conversion project dated from 1984 when AMLG and the Music OCLC Users Group made proposals for such a project to the Council on Library Resources. Upon receipt of the proposals, CLR convened a conference representing AMLG, the OCLC Users Group, the Music Libraries Association, the International Association of Music Libraries-U.S. Branch, the Association for Recorded Sound Collections/Associated Audio Archives Project, the Library of Congress, the Research Libraries Group, and the Washington Library Network. Also present were members of the scholarly and creative music communities.

From this conference emerged the "National Plan for Retrospective Conversion in Music," a document widely distributed in the music library community, and published in Fontes Artis Musicae, the journal of the International Association of Music Libraries. The plan provided the following bases for future projects in the conversion of bibliographic records for music materials: 1) it recommended priorities for conversion; 2) it established cataloging standards; 3) it established the matrix by means of which all efforts could be coordinated; 4) it provided for the distribution of records produced; and 5) it established a Joint Committee on Retrospective Conversion in Music. During its initial year, the national effort was assisted and monitored by the Association of Research Libraries, through which coordination of effort was maintained and through whose intervention several network charges were waived during the Title II-C funded pilot project.

The Title II-C grants awarded to the Associated Music Libraries Group through the Eastman School responded directly to the national imperative expressed through the conference conducted by the Council on Library Resources. As such, the grants radically increased the usefulness of the national databases by converting the catalogs of several of the nation's oldest and most respected music collections. The grants also increased the quantitative scope of the national databases by providing for the conversion of almost 79,000 records to machine readable form, a figure that is slightly more that twenty-one percent of the total number of such records that were in the OCLC database at the end of 1987-88. Of the records converted, seventy-six percent were either new to their respective databases, or edited with significantly enhanced points of access. The cooperative nature of the grant avoided duplication of effort in the retrospective conversion process, and was particularly important in the respect that the project involved both OCLC and RLIN.

Finally, the project indirectly supported the establishment of a national funnel for the creation of online authority records for music headings, central to scholars' successful access to research materials. Mary Wallace Davidson, Librarian of the Sibley Library at the Eastman School, has stated that the "importance of support for this project at the national level cannot be overestimated; without it, music libraries simply could not have undertaken conversion at this rate, if at all. Nor could the participants have completed their own conversion with such quality and efficiency, benefitting from common standards, procedures, quality control, and a controlled matrix enabling each to benefit from the others' work."

Results of the Title II-C project have been numerous and varied. All of the AMLG libraries have experienced extraordinary increases in the number of interlibrary loan requests as a result of the Title II-C project. In the instance of the Eastman School, for example, interlibrary loan requests quadrupled in the first year of the project alone. Further, the project has had a very beneficial effect upon the cataloging efforts of other music libraries. In 1986, the University of Virginia completed a survey comparing its unconverted records to the OCLC database in the call number areas covered by the Title II-C pilot project; with a hit rate of fifty-eight percent, thirty-six percent were identified as records input or enhanced by the project libraries. By September of 1989, Virginia noted that the hit rate had improved to between sixty and seventy percent and, after monitoring the effects of the project on its unconverted records, the staff "now expect to be able to accomplish about eighty percent of our remaining conversion by finding AMLG records in the database.... Were it not for the AMLG project, the music libraries at Virginia and at many other institutions would find it prohibitively expensive to undertake such a project."

A similar response was forthcoming from the Library of Performing Arts of the New York Public Library which, when setting about implementing an automated system in 1988, found an eighty-five percent hit rate for some 25,000 manual records produced before 1972. The staff was convinced that this high hit rate "is undoubtedly directly due to the cooperative reconversion cataloging project carried out by [AMLG]." The Chair of the International Association of Music Libraries-U.S. Branch also was of the opinion that the project "is the most significant cooperative endeavor which can be undertaken in the field of music librarianship and music bibliography. The distribution of the machine-readable cataloging through the various bibliographic utilities means that almost every, or perhaps all, music collections will receive direct benefits."

N.B. The Associate Music Libraries Group project was continued in 1988 and 1989, with the addition of Cornell University and with Indiana University as primary grantee; total Title II-C funding for these two years was $463,956 for a grand total of $1,152,102.

Indiana University--1986,1987,1988

From 1986 through 1988, Indiana University received three Title II-C grants, totaling $305,925 to conserve and make bibliographically accessible its extensive holdings of operatic scores and recordings. Drawn from both the School of Music Library and the Lilly Library, the project cataloged thousands of sound recordings, tapes, scores and libretti. In addition, 200 scores were bound through the project, and rare scores from the Lilly Library were repaired.

The breadth and depth of Indiana's opera collections have contributed to its music libraries' national preeminence. For example, the recently acquired Ross Allen Collection contains about 4,000 titles and almost 8,000 discs of operas and opera excerpts, including virtually all of the complete opera recordings made between 1925 and 1950. The Orchard Collection consists of tape duplicates of one of the largest privately-held opera collections in the United States and the Ehret Collection contains over 26,000 discs of opera recordings from the period between 1953 and 1984. A third newly acquired collection, the Mayer Collection, includes recordings of many important operatic performers as well as histories of major European theatres.

Cataloging sizeable components of the Allen, Ehret, and Mayer Collections was the primary focus of Indiana's three Title II-C grants. All cataloging employed full AACR2 standards and OCLC Input Standards--Level I. All access points for bibliographic records in the OCLC database used for cataloging were reviewed and upgraded to current cataloging standards; and master records in the database were modified using the Music Library's "Enhance" authorization. Appropriate name authority records also were prepared and submitted to the Library of Congress Name Authority File (through the Name Authority Cooperative project, NACO) for national distribution. As a result of the project, tens of thousands of name and name/title entries for operas, composers and performers were added to the OCLC database. In addition, complete access points were provided for each performer in complete operas and anthologies and for each selection within anthologies.

Indiana's 1986 Title II-C project included a component for the preservation of its rarer and more fragile scores. This aspect of the project consisted of the binding or rebinding of 200 scores and the construction of acid-free boxes for housing rare scores in the collection of the Lilly Library.

Among the results of the Indiana project is increased resource sharing for both scholars and librarians in ways not possible before 1986. Scholars have benefitted from access to vast amounts of materials to which there had previously been little or no systematic access. For librarians, the projects have shared data and tested standards, led to increased communication on a national level, and trained catalogers who have moved on to other institutions in the succeeding years.

Note: Indiana's opera materials project was continued by a fourth Title II-C grant in 1989, in the amount of $112,332.

University of Wisconsin--1986

In 1986, the University of Wisconsin-Madison received $107,952 in Title II-C funds to preserve or make accessible a large collection of musical theater materials in its Tams-Witmark Collection. The collection consists of over 37,000 production materials (scores & scripts) for 1,620 musical stage shows representing a wide range of musical traditions including opera, operetta, musical comedy, musical revue, burlesque, and minstrel shows. The collection, while particularly strong in American materials from the 1880s to the 1920s, also contains considerable holdings in stage history from 1800 onward, both American and European. Rare and early imprints are contained within the collection as well as sketches, working drafts, and autograph manuscripts.

Bibliographic control over the Tams-Witmark Collection was gained through applying the Archives & Manuscripts Control (AMC) format, an innovative use of the format which was developed by the Research Libraries Group for archival/manuscript control; the Wisconsin Title II-C project was, for the time, the largest application of the AMC format in OCLC's history and one of the first major projects to apply the AMC format to non-archival, non-manuscript materials. A total of 2,929 bibliographic records were contributed to the OCLC database, and of that number, 981 were AMC title records and 1,944 were score records, over half of the latter were original records.

The principal underlying the use of the AMC format in processing the Tams-Witmark Collection was the conviction that scholarly access would best be served by drawing together all manifestations of a given musical show, regardless of the language, format, variant, or truncated title. A major advantage of the AMC format was that, while providing automated access to the collection, it preserved the intellectual and physical integrity of the collection while accommodating collection-specific data appropriate to sophisticated scholar expectations. The project utilized activities familiar to the librarian (authority control, consistent application of standardized descriptive conventions etc.) as well as such innovative functions as defining the appropriate collection-specific data to be captured.

The strength of the AMC format relative to the Tams-Witmark project was in the breadth and depth of the information captured, as opposed to the detail afforded through individual item cataloging. The Wisconsin plan comprised the creation of a master record describing the entire Tams-Witmark Collection, including collection history and processing data. The next element of the record hierarchy consisted of the creation of a collection-entity bibliographic record describing all manifestations held for a given musical stage show. The final, and most precise, hierarchical element consisted of a title record (in Scores Format) describing each piano-vocal score. Each of these record types was linked to the other via AMC.

The Tams-Witmark Title II-C project also involved cleaning, preserving, and storing 25,000 items in the collection. Items were dry cleaned and housed in acid-free folders, envelopes, wrappers, and boxes. Coded information which was captured during project processing allowed for the preparation of a preservation profile for future projects. During the Title II-C project period, a pilot conservation project was undertaken in collaboration with the State Historical Society of Wisconsin. Society conservation staff humidified, deacidified, and encapsulated several particularly important Tams-Witmark documents and provided appropriate cost-factoring documentation for future mutual development.

Several initiatives arising from the Title II-C project have been continued by the University of Wisconsin Library. Among these initiatives is the investigation of possible involvement of the Tams-Witmark Collection in an international inventory of musical sources; the exploration of a joint preservation project with the Library of Congress and/or Princeton University; the investigation of a preliminary contact made during the Title II-C project with the National Institute for Music Theatre which may result in possible publications and colloquia; and the production of a video, focusing on the Tams-Witmark Title II-C project, that will be used in Wisconsin's current fundraising program for the General Library System.

### University of Virginia--1987

In 1987, the University of Virginia received a Title II-C grant in the amount of $89,999 to establish a model for the cataloging of pre-1900 libretti. The collection which served as the model's test was the microform edition of the Library of Congress' Albert Schatz Collection of libretti, the largest single collection of historical libretti in the United States. The strength of the collection is such that it contains first or early editions of the libretti for virtually all the major opera houses in Europe for nearly 300 years. Because of its scope, because it would establish a database against which other holdings could be compared, and because the University of Virginia already had access via a microfilm copy, the Schatz Collection was chosen as the strongest candidate around which to develop an automated cataloging model.

As stated in the Virginia Title II-C proposal, libretti have long been recognized by theatrical and musical researchers as a rich primary source of historical information. Earlier libretti provide not only the text of a work, but also the date and place of performance, and they generally furnish details concerning aspects of a particular production, including the singers, the instrumentalists, dancers, production personnel, and set design. Each libretto represents a specific production and constitutes the most complete--and in some cases the only--documentation available for that production. As such, libretti have considerable importance for the study of many musical art forms, including opera, oratorios, cantatas, intermezzi, masques, opera-ballets, and plays with incidental music. Libretti provide musical editors with the literary framework of the musical production and provide a mechanism for dating productions and changes over time in a work's score and parts. Biographers and lexicographers also make use of libretti in that they provide information that allows scholars to trace the careers of composers, librettists, choreographers, theatrical architects, and performers by providing such information as city of birth, names of patrons, and positions held. Libretti tell dance historians where ballet interludes occurred in vocal works and often include ballet titles, cast lists, and detailed scenarios.

The genesis of the Virginia project dated from a conference on libretti held at Munich in 1982, under the auspices of the Repertoire International des Sources Musicales (RISM). During the course of the conference, participants agreed upon a comprehensive definition for "libretto;" established a checklist of desirable data to be included in any libretto catalog; extended the cut-off date for cataloging historical libretti from 1800 to an undetermined point at mid-19th century when libretti cease to function as historical documents; and emphasized the immediate need for a national center for the cataloging of U.S. holdings to match the efforts of such long-standing centers as those in Munich and Milan.

Subsequently, guidelines were developed that would accommodate within the MARC format all points of information mandated by the 1982 RISM symposium. A pilot project to demonstrate the feasibility of the guidelines and of cataloging into one of the national online databases was completed with the cooperation of the Music Program Committee of the Research Libraries Group and five members of the Research Libraries Group--the University of Michigan, the University of California-Berkeley, Stanford, Cornell, and Yale Universities. In addition, surveys were conducted to determine the location, size, and nature of holdings of historical libretti in American libraries. As a result of these efforts, plans moved ahead for the first major U.S. cataloging effort of historical libretti. Of the various possible approaches to this task, the one deemed most feasible was to catalog a single significant collection online before individual libraries began inputting their own records; hence the Schatz Collection and the University of Virginia's Title II-C project.

Utilizing the RISM Guidelines described above, the Virginia Title II-C project cataloged 2,835 19th century Italian libretti from the Schatz Collection, one quarter of the collection's total. All cataloging data is available nationwide via the RLIN online database and provides a sizeable corpus of data that other libraries may use for purposes of their own cataloging. Also, A Brief Guide to Searching U.S.-RISM Libretto Project Records in RLIN has been produced to aid libraries and scholars in searching libretti in RLIN. As stated in the project's final performance report, because "RLIN is a 'live' reference tool, the University of Virginia and others will be able to continue to add data indefinitely. The data will remain a permanent part of the RLIN books file, maintained by RLG. RLIN's search capabilities allow the cataloging records to double as a comprehensive name and title index to the Schatz Collection; the wide availability of the database argues against the need to publish the catalog in another form."

Response from the scholarly and professional library communities to the Virginia Title II-C project has been substantial in the brief period since its completion. Several non-RLG institutions with strong holdings of libretti have sought information about Virginia's cataloging procedures and how records might be contributed to the RISM database. As evidenced through RLIN searching and from direct scholarly queries, the project already has demonstrated its utility to researchers. Based upon its initial success, it is the intention of the University of Virginia to catalog the entire Schatz Collection, with grant funding. As a result, the current database will be enlarged considerably and, it is hoped, will provide a basis for an international inventory of historical libretti employing the model established through the Title II-C project.

N.B. Virginia's libretto project was continued by a second Title II-C grant in 1989, in the amount of $105,071.

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Several scholars were asked to comment upon the entire range of Title II-C grants in the field of music. David Josephson, Assoc. Professor of Music at Brown University wrote:

> Bibliographic access is, I believe, the area most critically affected by the program, and given the vast ongoing need, one that continues to require urgent attention. Preservation, a vital need in those collections whose materials are unusually delicate and perishable, also requires ongoing generous support. The two needs go hand in hand, of course. Without access, the materials, no matter how valuable in the abstract, are virtually useless to the world of scholarship; while if we fail to preserve our materials, access becomes irrelevant. (Watching the manuscripts of Europe's musical treasures disappear over the past twenty years from the shelves of British and continental libraries because of their fragility has been a melancholy experience.) The third facet of Title II-C funding, acquisitions, must be vulnerable in an era of stretched budgets; but it too merits continuing support in cases where it makes sense to build a national collection in a specific area of scholarly inquiry, or where failure to acquire valuable materials would likely result in their disappearance.
>
> Let me offer you a direct and powerful example of the impact of Title II-C on musical scholarship right on the Brown campus, and radiating from it throughout the United States. The grants in question were given to the university in the early 1980s to make its superb American sheet music collections accessible to scholars. Limitations in funding, of course, required that only carefully selected areas in the collections could be cataloged: music by and about black Americans, settings of American poems, and music relating to the two world wars. Within very few years, the effort has begun to yield individual scholarly fruits, especially in the area of black American music.
>
> But a completely unexpected and far more crucial benefit was to flow from the Title II-C grant to Brown. In the early 1980s the American Musicological Society conceived a project of enormous scope: a national edition of American music in all its cultural riches and manifestations, critically edited and annotated. The models were the great European collections of national musics, notably the German and Austrian *Denkmaeler*. The undertaking needed both a home and national funding. The home chosen, after careful consideration by a distinguished national committee, was Brown. A major reason for the choice were Brown's collections, notably the Harris and American sheet music collections. And what distinguished those collections from other rich ones of sheet music at the Library of Congress and UCLA was the matter of access. "Access" was virtually synonymous, in fact, with "collection," for LC and UCLA have, for all intents and purposes, inaccessible materials, while Brown has collections that

scholars use daily. (The head of the project, Professor Richard Crocker of the University of Michigan, recognized after only a couple of days of work at the John Hay Library that the collection was unique because of its accessibility, and that it could and should serve as the magnet for American musical scholarship that he was looking for.)

Brown's choice as home for the project, now known simply as *MUSA (Music of the United States of America)*, in turn, was an element in the eventual approval by NEH of the grant requested to initiate the project. As a result, today *MUSA* is no longer a dream but a thriving operation, creating a home for American musical scholarship at Brown, aiding established American music scholars on a national level, giving a new generation of musicologists to examine and contribute to the riches of their national heritage rather than turning automatically to Europe as their teachers did, and soon to produce its first volume. The impact of Title II-C on this superb development was vital. The need, however, is ongoing, if this superb resource is to be utilized to any degree remotely approaching its potential.

One could go on at length. As a published scholar of the life and music of the Australian-American composer Percy Grainger and member of the board of the International Grainger Society, I am aware of the significance of the Yale Collection of Historical Sound Recordings, and the wonderful impact of the original Title II-C grant to that archive on Grainger scholarship; and Grainger is small potatoes in that spectacular resource, which, like the sister resource at Syracuse, has been marvelously enhanced through the grant. The Rutgers Institute of Jazz Studies is another nationally known and magnificent resource which has benefited visibly from its Title II-C grant.

It is vital that funding for accessibility and preservation of selected musical material go on unimpeded. This nation has a musical heritage of unparalleled richness. I suspect that in musical terms the twentieth century will be seen, in fact, as America's, as the nineteenth was Germany's. But the areas of its greatest significance, namely popular, theater, and film musics, jazz, and rock, are all areas in which the materials are dispersed, often printed on low quality paper, and, because they were long considered beneath the level of "high art," were ignored for the purposes of cataloging and indexing.

My own work at the present time, on the social, political, and economic components of American music in this century, has been made far more difficult than it should be by the inaccessibility and fragility of printed materials. And there are hundreds of music scholars in my position. The continuing generosity of Title II-C is urgent to all of us, scholars and librarians, this generation and future generations, who will document, preserve, and pass down our musical heritage.

D. W. Krummel, Professor in the School of Library and Information Science at the University of Illinois at Urbana-Champaign provided extensive and wide-ranging comments on Title II-C's music grants, comments that in many cases are equally applicable to the entire Title II-C program. Prof. Krummel wrote:

> My observations, in summary, are thus:
>
> [1.] Music scholars will react in one of three ways. Some will be fortunate to score "direct hits," thanks to particular Title II-C projects: they will be extremely enthusiastic, if few in number. Others, whose particular interests are not directly relevant, will be happy to offer their kind support: this will be vague but probably very useful, since the group is large. A few scholars will protest, complaining about the vast quantities of evidenc [illegible] he increased distancing of the artifact from the musical experience itself, and the like: and dissent is worth listening to constructively (so I am told).
>
> [2.] The projects themselves were conceived mostly [by] librarians, to provide better library service. Soundness is important, but its criteria are those more of the library school than the music school.

[3.] A deference to the librarian's outlook is wholly appropriate. Music scholarship today is largely "document-driven," thanks to its humanistic and historical orientation, partly to the exclusion of any "experience-driven" complement. The situation could change: perhaps stimulated by a reaction to libraries and their successes (Title II-C awards among them), artistic and expressive considerations may become more intense. For today, however, the Title II-C program has filled the right need; and it should continue to do so in the foreseeable future....

Evaluating the scholarship and evaluating the projects, at the outset, need to be seen as slightly different assignments. Music scholars can and will benefit from other Title II-C projects, while the eleven projects in turn support scholarship in areas other than music. Although it has a strong music component, Dartmouth is mostly drama; Rutgers can be proudly claimed by Afro-American studies; Brown is significantly, and appropriately, skewed toward American literature....

I. Balance in the Projects. The eleven, whose total funding comes to just under $3.5 million, may be fitted together in any number of ways, none of which I can honestly fault. Palestrina scholars may complain that the emphasis is too popular and punk-rock scholars that it is too highbrow, and scholars in all areas will protest their neglect, probably with about equal (and considerable) loudness and equal (and minimal) justification. Two entirely (Yale and Syracuse) and two more in part (Rutgers, Indiana) involve sound recordings, at a cost of some proportion of somewhat over $700,000, and this amount seems not unfair. No fewer than five (Brown, Morgan, Dartmouth, Indiana, Wisconsin, Virginia) involve dramatic music, at a cost of some proportion of $1.7 million, which might seem high were not the kinds so different. Rutgers has the only project to concentrate on a distinctly indigenous American music, although Brown involves American imprints; in fact it is at once both profound and vacuous to observe that all eleven reflect our nation's musical tastes in different ways.

Nine of the eleven sponsors, appropriately, are ARL libraries. The institutional sponsorship may appear to favor the Northeast, but (using Resources of American History as a guide) this is where many of the collections are, and not knowing what projects were denied funding I can see no evidence of bias. Nine projects were focused in a single library, and all of them took pains to emphasize replicability and extrapolation; AMLG has broad national applicability as its very basis. Virginia is the only one with international implications....

Several projects were obviously redefined in mid-course, as new programmatic dimensions come into focus, as external events offered special opportunities (e.g. Rutgers' experience with the Milwaukee jazz collection), or perhaps even as scholarship itself changes in its objectives. It would be nice if such evolving reconceptions could be described more systematically, since flexibility can be as essential and beneficial as it can be costly and corruptible.

The three goals--access, preservation, acquisition--overlap in many projects. This is understandable, since the pervasive goal is usually one of organization, and the handling of fragile items naturally encourages the efficiencies of merging activities. Rutgers was the only project to emphasize acquisitions. This was particularly timely, since jazz materials are evasive and ephemeral and still relatively cheap, so as to be in particular danger of disappearing. Materials naturally accrue to program strength, however, and in time all of the sponsoring libraries might be expected to benefit, through enhanced collections in their special areas (the AMLG institutions perhaps least distinctively, thanks to the nature of the project. Virginia perhaps least, thanks to the price and scarcity of early libretti).

Among the preservation projects, those involving sound recordings instinctively thought in terms of a new medium, in contrast to those involving paper documents, all of which thought in terms of conserving originals. Perhaps neither microfilm nor laser discs has inspired much faith, particularly after research materials have once been allowed to testify to their importance. Such practices are appropriate insofar as they reflect on differing sensitivities on the part of the scholars in question. Discographic specialists will typically cringe at the thought of damaging a fragile original by listening to it, but feel comfortable with a re-dubbing. Those who work with paper documents, however--well, we all know how user-friendly microfilm reading equipment really is. But what shelf-life can one expect from late 19th- and early 20th-century ephemera--or music scores even, for that matter--almost all on high-acid paper?

Access, in contrast, has invariably taken only one single form, that of bibliographical records deposited in online utilities (and about equally between RLIN and OCLC), rather than hard-copy or CD-ROM, even for static collections. Promotion...is only tacitly seen as a component of access. (Does nobody really care how useless LC subject headings are to most researchers?) Nor is there much explicit evidence of seed-money spin-offs. Wisconsin's fund-raising video is the conspicuous exception. All eleven projects were well publicized--at least I was well aware of them, thanks to music library sources, as I suspect were all scholars who follow the current information sources in their specialty areas.

What about scholarly use? About the only specific concern I can identify anywhere in the document was for increased Inter-Library Loan activity resulting from bibliographical records generated by AMLG. But then is research material to be equated with infrequent use? What kinds and levels of promotion of use are relevant to projects like these under consideration here? Is Inter-Library Loan relevant at all? One way to make these questions other than rhetorical might be through another more theoretical question: Are any of the several distinctions between primary and secondary sources really relevant to superimpose on the question of what Title II-C ought to be doing? I raise such questions mainly as a means to introducing the scholarship itself, and its relationships to projects. Obviously some sensitivity to scholars is important....But how much, and in what ways, are identifiable scholarly agendas really needed to complement the collections themselves so as to justify support?

II. Implications on Scholarship. How can one possibly summarize the vast and ever-changing current agenda of musical scholarship so as to consider how well the eleven projects serve them? Perspective is needed, and there are countless (and contradictory) ways to proceed. The handiest for me--perhaps not the best, although I think its conclusions will be borne out in other sources--was the program for the November 1990 joint conference of three major organizations - the American Musicological Society (AMS), the Society for Ethnomusicology (SEM), and the Society for Music Theory (SMT), listing about two hundred papers. Of these papers, no more than twenty, roughly guessing, can honestly be seen as in any way related to or served by our eleven projects. (Actually, SEM is probably better served by the Title II-C area studies awards, SMT by the OE grants for educational research.)

The proportion may seem to suggest that Title II-C has landed wide of its intended target. Unsympathetic specialists may be quick to propose that, instead of helping librarians address timely issues, the program has helped them clear up backlogs of material that should have been trashed in the first place. Hostile congressmen may be happy to listen to them, as they ask whether the good name of scholarship is not being evoked in allowing libraries to use federal funds for things they would never have dared to spend local public money on. (At this point deconstructionists might be expected to enter the fray to administer the *coup de grace* to libraries by liberating us all from the very notion of texts: oddly enough, this seems not to be happening -- I am glad, even if I can not wholly grasp the reasons why). How do we evoke the aims of scholarship in answering the critics?

The eleven projects may indeed appear to serve only about ten percent of today's scholarship; ten to twenty years ago, however, the proportion would surely have been much lower, likely well under five percent. Those very specialties that are served by Title II-C supported projects, in fact, are commonly (which is to say vaguely) identifiable as areas of growth. If not jazz specifically, at least all popular music generally; if not opera and Gilbert & Sullivan specifically, at least various multimedia arts generally; if not recordings specifically, at least the events of sound generally; if not sheet music specifically, at least commercial artifacts generally.

Scholars--at least all but the wisest ones, who are if not divine at least incorruptible--usually follow the money, sooner or later. In many ways Title II-C has been a good example of the Library as an Agent of Change (shades of the 1960s!). Its selected areas for future study are ones that will attract future study; and this will no doubt produce some resentment, from scholars as well as conceivably from the general public, passionately committed to music as it is.... It is partly in answer to this criticism that the AMLG project looms as particularly important, since it serves scholarship virtually across the board. It can also be argued that the "truly great music" is, relatively speaking, already well covered bibliographically, although the argument is dangerous since specialists will argue from a position of strength in their dissent.

Use of state of the art technology and proud mention of "highest standards" are much to be applauded, although when one looks at the unit costs (from $40 to over $100 per bibliographical entry, if my estimates are correct) and the vast quantity (Resources of American History identifies roughly 20 million items, and it excludes foreign materials and items after ca. 1940), one sees a need, either for lower standards (which librarians would deplore) or for consensually acceptable value judgements (for which nobody holds out any great hopes). Rather than resolving the matter, let me run for cover by tossing out another suggestion then: scholars, in music as well as in other areas, need short-courses in "authority-work appreciation." (I'm not sure, however, that I would want to teach them.) Some formulation of scholarly objectives, developed out of policy studies, is much in order....

Lest my remarks be seen as pernicious rather than critical observations, let me go on record. Without any doubt (1) the HEA Title II-C program has been immensely significant to music scholarship; (2) I see no evidence that it has been other than thoughtfully and impeccably administered; and (3) the program's continued and enhanced support must be recognized as a long-term national priority.

# APPENDICES

# APPENDIX 1

## The Award Process

The regulations governing the Title II-C application process are well documented through the instructions issued by the Department of Education (DOE) for submitting grant proposals. Less well-known is the process by which proposals are considered for funding and the procedures that determine the amount of funding awarded to successful proposals.

All proposals arriving at the DOE before the stated deadline are assigned an identification number issued in the order of receipt. No preliminary sorting or ranking are imposed upon the proposals by DOE staff, who confine their involvement at this stage to ascertaining that all proposals are complete and include all mandated information. Incomplete proposals and those that arrive after the deadline are rejected by the Department.

All proposals are reviewed in the field by teams of three readers selected by Department staff. A file of potential reviewers is maintained by the Department and by the program office. Qualified reviewers are identified through oral and written communications to professional organizations, at professional meetings, and by informal contacts; recommendations are solicited from staff as well. In accordance with the principle of peer review, criteria for readers consist of demonstrated expertise in research and scholarly activities; demonstrated expertise and leadership in the research library community; the type of library represented (university, public, independent, etc.); and geographic representation. In practice, the majority of readers represent institutions that have received at least one Title II-C grant. Staff is careful to avoid conflict of interest in assigning proposals, and readers are expected to excuse themselves from reading a proposal that presents such a conflict. Review teams generally receive nine to twelve proposals.

In recent years, there have been two review panels: the first evaluates the significance of the applicant institution as a major research library, and the second evaluates the quality of the proposed project. Once an institution has been designated a major research library, eligibility is retained for four succeeding years. Regardless of whether an institution has received a Title II-C grant in the interim, every applicant institution must re-establish its eligibility as a major research library every five years.

For the first review, each team is assigned an equitable number of applications, following a stratified random sampling that takes into account the criteria listed above. Accompanying the applications are instructions for review and a copy of the program regulations and the authorizing statute. Reviewers are instructed to assign numerical scores to each application, guided by the criteria listed in the Technical Review form upon which scores are entered. Although the teams are not required to reach a consensus, a leader is chosen by each team and it is expected that the teams will confer by telephone as they deliberate. When the reviews are completed, they are signed and returned to the Department with numerical scores and written comments justifying each score.

The total scores are averaged to determine whether applicant institutions achieved the minimum score, sixty-five points, that establishes eligibility as a major research library. A memorandum listing all eligible institutions is prepared by the staff and forwarded to the Director of Library Programs, the Assistant Secretary of the Department, the Office of Educational Research and Improvement, and the Grants and Contracts Office. Those institutions that do not achieve the minimum score of sixty-five points are notified that under Section 231 of the Higher Education Amendments of 1986, they may submit additional information or documents to demonstrate the national or international significance for scholarly research of the collection addressed in the grant proposal. If staff is persuaded by the additional information, then the proposal is included in the second stage of the review process. It should be noted that if an institution does not perceive itself as fulfilling the requirements necessary to qualify as a major research library, it may neither ignore nor gloss over the those portions of the proposal that establish eligibility; a good faith effort is mandatory. By the same token, regardless of how strong a research library is, it too must re-establish its eligibility every five years.

All eligible proposals advance to the second stage of the review process on an equal basis, so that an institution that scores very high as a major research library has no advantage over an institution that scores just above the minimum. In the early years of the program, when funding was determined by a single score based upon both institutional eligibility and the merits of the proposed project, institutional strength heavily influenced the score, sometimes at the expense of excellent proposals submitted by weaker institutions. Under the present arrangement, once eligibility is established in phase one of the review process, all project proposals then compete in phase two on an equal footing.

Phase two of the review process evaluates the quality of the proposed project, and the process for scoring applications is similar to that followed for phase one. Applications are again assigned to reviewers by DOE staff using a stratified random sampling that takes into account the nature of the applicant institution, the proposed project, and the expertise of the reviewers. While the same individual may serve as a reviewer in both phases one and two in the same year, he or she cannot review both parts of the same proposal. Three-member teams constitute the second review panel and each member receives project proposals along with review instructions and a copy of the program regulations and the authorizing statute. If an institution submits more than one proposal in the same review period, each proposal is reviewed by a different panel. Reviewers are instructed to assign preliminary numerical scores to each application. Each team selects a team leader and DOE staff emphasize that it is essential for team members to discuss their findings.

Approximately two weeks after the applications are mailed, all readers convene for three days in Washington, D.C., bringing with them the applications and the Technical Review forms with preliminary scores and comments justifying the score given. On the first day, an orientation session is conducted with program staff and a representative of the Grants and Contracts office to discuss the requirements and the scope of the review and to clarify areas of concern. In order to illustrate the scoring procedure, the entire group of reviewers (typically numbering twenty-five individuals) is at this point provided with a proposal from a previous year. Each reader scores the sample proposal, the results of which are shared with the group. In addition to serving as an introduction to the scoring process, this exercise illustrates how individual readers respond differently to the same proposal and underscores the value of team discussion of each proposal.

On the second day, the review teams meet to discuss and evaluate their proposals. While team members are not required to reach a consensus, in practice many teams attempt to do so as part of the evaluation process. However, each team member submits an individual score for each proposal and is expected to justify on the Technical Review form his or her score for each proposal component and for the overall score. Before the teams disperse on the third day, the entire group re-convenes and staff announces the average scores, from highest to lowest, omitting institutional names. At this point, staff also provides an estimate as to the minimum score necessary for funding: this figure is based upon reviewers' scores, the program allocation, and their prior experience.

Once the review process is completed, DOE staff verifies all numerical scores for each application, and an average score for each application is computed from the individual reviewer scores. Based on the rank order, a slate of the highest rated applications is prepared. A funding cut-off point is determined by reviewer scores, the funds allocated to the program, the amounts requested in the proposals, and the sum reserved for non-competing continuation grants which is taken off the top (approximately $1,000,000 in recent years). At this stage, the applications also undergo a geographical analysis to establish whether they are broadly and equitably distributed, and other projects may be selected if doing so will improve geographical distribution. Factors in this determination include the geographical distribution of projects funded during the previous five years and the value of the affected project(s) on the needs of the research community.

Funding determinations are generally consistent with the peer review process, the exceptions are when adjustments are necessary to achieve geographical balance or when staff reviews differ from those of the review panels. An example of the latter would be a situation when more than one proposal is submitted by the same institution, and one proposal is viewed as clearly superior in quality to the other. The DOE staff may then, within its mandated authority, eliminate the second proposal in favor of another institution's application. If a funding determination differs from that of the review panels, such deviation is justified in writing.

Once the funding determinations are established as described above, the staff produces a memorandum containing the determinations and a rank order listing of all applications reviewed. The memorandum is then submitted to the Assistant Secretary of the Department of Education who is empowered with the responsibility to insure broad geographical distribution, to determine that the research interests of the nation have been served by the funding determinations and to verify that the entire evaluation process has been conducted in a fair and equitable manner. After approving the funding determination, the Assistant Secretary signs the funding memorandum which is forwarded to the Grants and Contracts office along with the official file for each approved application.

The final stage of the awards process is the negotiation between program staff and the funded applicants. Given the shortage of funds and the large number of fundable proposals, such negotiation is the rule rather than the exception. The amount of the award and suggestions for budget reduction may be based upon review panel recommendations, DOE staff re-recommendations, or recommendations from the Department's Grants and Contracts office. It is also common practice for applicant institutions to offer counter proposals for reductions that will lessen the impact of the smaller funding offer. One result of the negotiation process is that funds may thereby be made available for worthwhile projects with only slightly lower scores than those in the first round of negotiations. Thus, the negotiation process often adds projects that otherwise would not be funded.

All unsuccessful applicants receive a "regret" letter signed by the Director of Library Programs. One copy of each unfunded proposal is retained for sixty days after the end of the fiscal year for which funding was requested. After that period, unfunded applications are sent to the Federal Records Center. Program staff indefinitely retain funded proposals, reviewer scoring sheets, and project quarterly and final reports.

# APPENDIX 2

## Issues and Questions for Additional Consideration

The preceding text and tabular data provide background for assessing long- standing questions relative to the nature of the Title II-C Program and its administration, along with issues pertaining to institutional participation in the program, geographical distribution of grant awards, and the focus of the program among its three stated priorities. Several of these questions are included below:

1. Does Congress and the research community have an understanding of the Title II-C Program, its purpose, and its role in improving access to scholarly information? How can this understanding be improved or created?

2. Should federal funding for Title II-C be increased in line with the amount specified in the authorizing legislation? If so, what strategies might be employed to bring this about? What role should ARL play?

3. In the absence of increased federal funding and the gradual increase in funded proposals, which together have reduced the average size of grant awards, should consideration be given to awarding fewer but larger grants?

4. In the award process, does the present relationship of program staff to peer review provide the most equitable method for; (a) establishing the eligibility of an applicant as a major research library; (b) judging the quality of project proposals; (c) suggesting elements for omission in the negotiation process? If not, should the role of program staff be greater or should the role of peer review be extended?

5. Earlier Title II-C scoring methods could be said to have favored the strongest research libraries, since scores for eligibility were combined with project scores. Today's scoring procedures put all projects on an equal footing, but may result in federal funding being awarded to a strong project in a weak institution. Given the basic goals of the program, which approach is likely to be the more effective?

6. Does the peer review panel that judges proposal quality receive sufficient information about applicant institutions; in particular, would it be useful to have information on previous Title II-C grants awarded to those institutions under review, including number of grants, type of projects funded, and success in carrying out previous grants?

7. Once eligibility as a major research library is established, does the requirement that the institution re-establish its eligibility every five years serve a useful purpose?

8. Has the emphasis upon broad, equitable, geographical distribution worked in the best interests of the program's mandate to fund the strongest project proposals?

9. Have the various efforts to insure broad, equitable, geographical distribution proved successful? Does broad geographical distribution compromise the competitive nature of the program? Does it favor geography over quality?

10. In an environment of limited funding, does the practice of allowing non-competing continuation grants compromise the competitive nature of the program?

11. Would further institutional analysis of successful Title II-C applicants be beneficial? Are there institutional characteristics common to those libraries that have received five or more grants; that have received over $1,000,000 in Title II-C funds; that have received multiple grants in the same year; that have participated in multi-institutional joint projects?

12. Are there common characteristics among ARL institutions which have not received Title II-C grants? Should ARL encourage these institutions to participate?

13. Are there common characteristics among non-ARL institutions that have received Title II-C grants?

14. Have any successful proposals been submitted since the recent inclusion of language in the guidelines allowing a non-research library to be funded if it can demonstrate that it has a special collection worthy of program attention?

15. Should the Department of Education publicize the Title II-C Program through grant workshops, articles, staff presentations at conferences etc. in an effort to broaden geographical distribution and to make the program better known to both research libraries and non-research libraries with strong special collections that have not participated in the program?

16. Is the practice of awarding more than one grant to the same institution in the same year, even though based on very high project proposal scores, in the best interests of wide geographical and institutional distribution? If more than one proposal is submitted by the same institution, should the proposals be read by the same peer review panel or should each be read by a separate panel, as is presently the case?

17. Do libraries experience problems in administering or participating in multiple Title II-C projects simultaneously?

18. Based on present trends, is there a strong likelihood that bibliographic control projects will continue to dominate Title II-C funding patterns? Is this desirable from the standpoint of the library/research community or should there be a more equitable balance among the three stated program priorities? If the latter, what strategies should be employed to bring about a more equitable balance?

19. Are there characteristics common to proposals submitted by institutions that have been highly successful in receiving Title II-C funds over the past ten years, either in terms of proposal focus or proposal design?

20. Are there characteristics common to proposals submitted by certain types of institutions, e.g., public vs. private, large vs. small academic, academic vs. non-academic, special focus vs. general?

## END NOTES

1. 20 USC 1041.

2. Ibid.

3. Unless otherwise noted, all data included in this study covers the eleven years from 1978, the year in which the Title II-C Program awarded its first grants, through fiscal year 1988. Pertinent information relating to fiscal year 1989 is for the most part included in the footnotes.

4. U.S. Senate. Committee on Labor and Public Welfare. "Education Amendments of 1976," 94th Congress, 2d session, 1976. S. Rept. 94-882, p.9.

5. The literature on Title II-C consists, for the most part, of announcements or brief descriptions of funded projects, an occasional exchange as to the fairness of the law's provisions and the regulations whereby it is administered, or expressions of support for continued funding. The most complete narrative and statistical description of the program is the continuing series of articles submitted by program staff to the Bowker Annual of Library and Book Trade Information. See "Higher Education Act, Title II-C, Strengthening Research Library Resources" in editions of the Bowker Annual beginning with the 24th edition (1979). Information is also included in the Department of Education's abstracts of funded projects, with the 1988 compilation providing a useful statistical overview for the years 1978 through 1988. See U.S. Department of Education, Office of Educational Research and Improvement, Strengthening Research Library Resources Program, Abstracts of Funded Projects.

An impartial critical analysis of Title II-C is contained in Frank W. Goudy's "HEA, Title II-C Grant Awards: A Financial Overview from FY 1978-79 Through FY 1981-82," Journal of Academic Librarianship, VIII (November 1982), pp. 264-269.

6. Abigail Studdiford's Historical Review of Projects Funded Under Title II-C of the Higher Education Act of 1965: Strengthening Research Library Resources, 1978-1981 was commissioned by the Department of Education in 1982. Although it surveys only the first four years of the program, Studdiford's report provided a succinct history of policies and events that led to Title II-C; examined the achievements of funded projects in relation to their stated objectives; and described the mechanics of the program including standards of eligibility for assistance, scoring and the review process, geographic representation, and budget and reporting requirements.

7. Ibid., p. 152.

8. No statistics have been compiled, for example, on the total number of bibliographic records created through Title II-C projects, or the cumulative number of books and other materials acquired by research libraries with Title II-C funding.

9. Again in 1989, the total number of grants received declined, to 83. This indicates the possibility that continued growth in the number of applications received may have peaked.

10. A slight decrease in the number of grants awarded (32) occurred in 1989.

11. The average grant size in 1989 was $177,344, an increase over the preceding three years but still below the preceding 10-year average.

12. In 1989, the Jewish Theological Seminary and Mississippi State University raised the total number of institutions receiving grants to 112. While indicative of the slow, steady increase in the number of institutions participating in the Title II-C program, the addition of these libraries did not alter significantly the institutional profile as it stood in 1988.

13. The number of first time grants rose in 1989 to 40, or 36% of the total.

14. In 1989, SUNY-Buffalo and the University of Kansas joined the ranks of those institutions receiving over $1,000,000 in Title II-C funds, bringing the total to 25. While this raises the total funds awarded to those institutions to $41,303,116, the percentage of total funds awarded to those institutions was reduced slightly, to 60%. Neither SUNY-Buffalo nor the University of Kansas has participated in a joint multi-institutional project.

15. Mississippi received its first grant in 1989.

16. This trend did not vary significantly as a result of 1989 grants. New York and California received four additional grants each, for a total of 56 and 47 respectively. Illinois received three grants for a total of 46.

17. In 1989, bibliographic control retained its strong lead in terms of funds awarded, $4,674,002, or 82% of the total. Preservation declined again, to $591,729, or 11% of the total. In contrast, collection development increased from 1% in both 1987 and 1988 to 7% ($409,269) of the total in 1989. It is too early to know whether the four grants that were either exclusively or partially funded for collection development represent more than an anomaly, but it is worth noting that collection development has not received more than 7% of total funding in any one year since 1980 (7% was received in 1981 and 1984).

18. U.S. Department of Education, Office of Educational Research and Improvement, Strengthening Research Library Resources Program, Abstracts of Funded Projects 1988, Table 3 and Chart 2.

19. Ibid., Table 5.

20. "Strengthening Research Library Resources Program (HEA Title II-C)," Bowker Annual of Library and Book Trade Information, 1990-1991 edition (New York: Bowker, 1990), p. 264.

## GLOSSARY

AACR2: Anglo-American Cataloging Rules, Second Edition; first issued in 1978.

AMC: Archives and Manuscript Control format.

ANSI: American National Standards Institute.

ARL: Association of Research Libraries; a member organization of 119 research libraries in the United States and Canada.

CD-ROM: Compact disk, read-only memory.

COM: Computer-output microform (fiche or film).

CONSER: Cooperative Conversion of Serials, an international effort to convert bibliographic data for serials into machine-readable form in order to improve bibliographic control and access.

LSCA: Library Services and Construction Act, 20 USC 351.

MARC: Machine Readable Cataloging; the standards, developed by the Library of Congress, for encoding bibliographic and authority data in machine-readable form.

NACO: National Coordinated Cataloging Operations, formerly the Name Authority Cooperative. Begun in 1977 by the Library of Congress, the project trains participating libraries (approximately 50 in 1990) to formulate personal, corporate, and non-jurisdictional headings and contribute them to LC's name Authority File.

NISO: National Information Standards Organization.

NOTIS: Mainframe-based library software system developed at Northwestern University.

OCLC: Online Computer Library Center, formerly Ohio College Library Center; a not-for-profit cooperative organization that is one of the largest bibliographic utilities in the United States.

RLG/RLIN: The Research Libraries Group, a not-for-profit consortium of research institutions which operates RLIN, the Research Libraries Information Network, one of the largest bibliographic utilities in the United States.